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If not very incompatible
with Doctor Duncan's arrange-
ments, the Author would feel
much obliged by a review of
this little work, in the next No.
of the Edinburgh Med. Journal



A
PRACTICAL ESSAY
ON
THE DISEASES
OF
THE VESSELS AND GLANDS
OF THE
ABSORBENT SYSTEM:
BEING THE
Substance of Observations
WHICH OBTAINED
THE PRIZE FOR 1812,
OFFERED
BY THE ROYAL COLLEGE OF SURGEONS,
IN
LONDON:
TO WHICH ARE ADDED
SURGICAL CASES, WITH PRACTICAL REMARKS.

BY WILLIAM GOODLAD,
SURGEON, BURY, LANCASHIRE,
MEMBER OF THE COLLEGE, &c.

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TO
ROBERT WAGSTAFFE KILLER, Esq.

LATE SURGEON

TO THE
MANCHESTER INFIRMARY, DISPENSARY,
LUNATIC HOSPITAL AND
ASYLUM :

THE FOLLOWING PAGES ARE DEDICATED,

AS

A TOKEN OF RESPECT FOR HIS ABILITIES,

AND

OF GRATITUDE FOR HIS FRIENDSHIP,

BY HIS OBLIGED FRIEND,

AND AFFECTIONATE PUPIL,

THE AUTHOR.

BURY,
February, 8th 1814.

PREFACE.



THE action of the Absorbent System is so intimately connected with the operations of the animal frame, that an inquiry into every complaint attended with derangement in its functions, would include almost all those which come under the cognizance of the Surgeon. In the following Essay, I purposed to confine myself to those diseases, where the vessels or glands of the Absorbent System are primarily affected, and where the diseased action necessarily tends to disorganize their structure. This view of the subject, though apparently

simple, is with some difficulty defined, and has not been strictly adhered to.

Fungus Hæmatodes, Carcinoma, and some other species of Sarcoma, should by this rule have been included; and the history of diseases which affect the absorbent glands, may justly be considered defective by the omission : indeed, by leaving out the whole class of sarcomatous complaints, their pathology will be found very much limited, but this omission will not, I hope, be considered important, since Mr. Abernethy's excellent work is in the hands of every Surgeon.

Though the view which I have taken of the diseases of the Absorbent System be confined, I have frequently found it necessary to avail

myself of the researches of preceding writers, and to combine and include their observations with my own. For this liberty, no apology can, I conceive, be necessary; since the opportunities for individual observation must necessarily be circumscribed; and by looking at disease in one view only, our inferences would probably be incorrect, and certainly less useful.

In treating on Scrofula, as it affects the absorbent glands, I have taken great, but not, I hope, unwarrantable liberties, with the opinions of men who deservedly rank high in their profession. I have endeavoured to trace Scrofulous actions to a cause which is cognizable to our senses; but which, when acknowledged to exist, has been con-

sidered an effect only of the disease. I am aware that the arguments which appear to me conclusive, may be deemed unsatisfactory by others; but, as they lead to inquiry, they cannot, I think, do harm; and I am not without hope, that the practical tendency of my opinions, will justify me in submitting them to the candour of the public.

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PRACTICAL ESSAY
ON THE
DISEASES
OF THE
ABSORBENT SYSTEM.

CHAP. I.

ANATOMY OF THE ABSORBENT SYSTEM.

THE aliment which constitutes the food of man, after being masticated, is conveyed into the stomach, and converted into a bland, uniform, pulpy mass, which is called chyme. When this operation is completed, it passes into the intestines, where it is separated into two parts, one of which, closely resembles milk, and is called chyle; the other, which is excrementitious matter, passes through the alimentary canal, and is ejected from the body.

The chyle being fitted for the support of the system, is received from the inner surface of the intestines, and conveyed to the right side of the heart; and, having circulated through the lungs, is returned to the left ventricle; from whence, it is distributed to every part of the body. In this course it becomes more perfectly animalised, and is prepared for deposition by the extreme arterial branches; which have the power of changing its properties into substances, whose qualities and actions correspond with those of the part they are destined to supply.

The matter which is thus secreted constitutes a part of our fabric. It is endowed with, and regulated by the vital principle. This principle, however, does not exist in the same particles during the whole period of our existence; and when its influence ceases, they are re-dissolved, and re-conveyed into the circulation.

For this purpose, the body is every where furnished with a system of vessels, which absorb the fluids in which their orifices are

immersed. These vessels are composed of three coats: an internal, or cuticular coat; a middle, or muscular coat; and a cellular, or external connecting coat. After death they are generally empty, and as their coats are pellucid it is difficult to distinguish them; but by killing an animal which has been previously fed with madder, or into whose stomach, a solution of starch, indigo, or any other coloured liquor has been injected, they are rendered visible. ¹

They may be distinguished from the nerves, by their transparency; and from the blood vessels, by the colour of the fluids which they contain, by the irregularity of their course, by their joint-like structure, and by their termination in glands. ² Their contents are conveyed from the circumference towards the centre of the system, and terminate in a common duct, which has much less capacity than the collective branches.

¹ Soemmerring *de corporis human. fabrica* Tom. V. Cruikshank's *Anatomy of the Absorbent System*, and Hunter's *Medical Commentaries*.

² Soemmerring *loco citato*.

Before physiologists were aware, that the solid parts of the body are constantly changing, it was believed, that the absorbents, like the veins, were only reflex continuations of the arteries, and that they received their contents directly from the latter vessels. ³

But the absorption of chyle from the intestines, of pus from the cavities of abscesses, and of water from the bags of the pleura, peritoneum, tunica-vaginalis-testis &c. is inexplicable, if they do not arise from surfaces; and if they arise from surfaces in these parts, it may be justly inferred that their origin is similar in others. This doctrine was first taught by Doctor Hunter, and is now generally received.

They are supplied with arteries, veins, nerves, and absorbents (*vasa. vasorum*) from the contiguous cellular membrane, are uninfluenced by the will, and are not endowed with acute sensation.

³ Boerhaave. Method. Stud. Med. ab Hallero evulgat. p. 444. et in Institut. medic. § 246.

SECTION I.

Structure of the Absorbent Vessels:

THE internal coat of the absorbent vessels is smooth, polished, and like the inner coat of veins gives rise to a great number of *valvulæ plicæ*,⁴ which are fixed in pairs to the sides of the vessel, in a half moon or parabolic shape.⁵ The circular edge of the valves is attached to the sides of the vessel, the straight edge is loose, or floating, and corresponds with its diameter.⁶ Towards the trunk of the system they are concave, and convex towards the extremities.⁷ In consequence of this contrivance they admit the passage of fluids to the heart, and prevent their reflux in a contrary direction. They are more numerous than the valves of the veins, (three, four, or more being frequently found in the space of an inch,) and give to the vessel a

⁴ Ruysch. Dilucid. valvul. vas lymph. et lacteis.

⁵ Soemmerring loco citato.

⁶ Cruikshank.

⁷ Winterbottom's Dissert. Inaugur. de vas. abs. P. 11. 8vo.

knotted appearance.⁸ Doctor Monro thought with Haller, that their number was regulated by the contiguity of the vessel to arteries or muscles,⁹ and that these by pressing upon, or giving a vibration to it, rendered valves unnecessary. But the observation must be proved to be correct before we admit his inference. Their distribution is in fact very much varied in different bodies. In some the thoracic duct is crowded with them, and in others it only contains three or four pairs. The same irregularity exists in every part of their course.

Their valves are able to bear a much higher column of mercury than the valves of the veins. They are stronger in the extremities than in the different cavities, and are most easily ruptured in the thoracic duct.¹⁰ A valve is uniformly found at the junction of the branches with the thoracic duct, and at its termination in the subclavian vein.

Some anatomical teachers believe that the

⁸ Soemmerring loco citato.

⁹ Monro De venis lymphaticis valvuloris &c. p. 37 & 39.

¹⁰ Cooper, in Medical Records and Researches, for 1798.

absorbent vessels consist only of one proper coat, through which the lymph flows, like fluids through capillary tubes. Nuck, Cruikshank, and Sheldon have indeed demonstrated the existence of fibres in the thoracic duct of a horse, and have consequently inferred that they exist in the branches. But their existence is no proof that they possess muscular power, for tendons, ligaments &c. are fibrous, yet, they are not muscular.

We have evidence that muscular action is not necessary to counteract the laws of gravitation in organic structure. It is well known that the sap of vegetables rises many times higher than the height of man, and moves (though unsupported by valves) with a force more than equal to the pressure of forty-three perpendicular feet of water :—in the cut end of a vine, it supported, in the bleeding season, a column of thirty-eight inches of mercury. ¹¹

Their valvular structure, their small supply of oxygenated blood, their dissimilarity to other

¹¹ Hales's Vegetable Statics, vol. 1. p. 114.

muscles, and the continuance of their action after death, furnish additional evidence against this opinion. Like the veins too, they become varicose, a fact which appears irreconcilable with muscular action. Neither does it appear that their action can be explained, if their muscularity be granted; for the contractile power of arteries increases as their diameter diminishes; and if the absorbents observe this law, how is chyle or lymph admitted into them?

However plausible these arguments may appear, they are too confined to be accurate. A considerable supply of red blood, and a fasciculated structure, are necessary to enable the muscles of the higher classes of animals to perform the various offices which are allotted them.¹² But as the functions are less complicated, we find this structure less evident, until the fasciculi disappear, and fibres can only be distinguished by the assistance of glasses which

¹² Home's Croonian Lecture in Philosophical Transactions for 1795.

possess great magnifying powers.¹³ This is the case in the *tænia hydatigenia*, yet its alternate contractions and relaxations were rendered evident by warm water only, and exactly resembled the actions of more perfect animals.¹⁴

A very astonishing contractile power resides also in the gelatinous parenchyma of the zoophites, and animals which inhabit corals; in whose structure nothing like muscular fibres can be distinguished.¹⁵

The red colour of muscles depends on the quantity of oxygenated blood which they receive from the heart, but their irritability is not in the same proportion; for the muscles of frogs, turtles, and serpents, are more irritable, and retain their irritability longer after death, than the more oxygenated muscles of warm blooded animals. That colour is a most uncertain guide in the physiology of muscles, is further proved by those of the caterpillar, which are of a bluish grey, and

¹³ Home's Croonian Lecture in Philosophical Transactions for 1795.

¹⁴ Ibid.

¹⁵ Blumenbach's Comparative Anatomy by Lawrence, p. 393.

10 ANATOMY OF THE ABSORBENT SYSTEM.

transparent like jelly. ¹⁶ The same colour is found in the muscles of most insects. ¹⁷

Since, then, muscular action exists under such varieties of external character ; it becomes necessary to inquire into, and to be governed by the powers which the absorbents possess, rather than by their structure. If their contraction, on the application of external stimuli, be admitted as a proof, their muscular power has been long demonstrated : Haller produced it by the application of sulphuric acid to the absorbents of the liver ; and saw them propel their contents with celerity, on the admission of cold air into the abdominal cavity. ¹⁸ They possess this power in all red blooded animals, and it not only exists from birth, but is so tenaciously retained that it is not immediately destroyed by death. ¹⁹ They contract too with considerable force, for they

¹⁶ Lyonet *Trait. Anat. de la Chenille.* p. 92.

¹⁷ Blumenbach's *Comparative Anatomy* by Lawrence, p. 392.

¹⁸ See Cruikshank's *Anatomy of the Absorbent System*, and Soemmerring *de corp. human. fabrica* Tom. V.

¹⁹ Cruikshank's *Anatomy*, &c.

have been frequently ruptured by their own action,²⁰ and though they are dilated and form varices, it most probably arises from paralysis of the muscular, or rupture of a small portion of their internal coat.²¹

The fibres which compose the muscular, or middle coat of absorbent vessels, are thin, transparent, and not readily separated from the inner coat, to which they are attached by the common cellular membrane. They are best demonstrated by inverting an absorbent vessel over a glass tube, which is somewhat larger than itself; the internal coat is thereby ruptured and shews the muscular structure. Mr. Cruikshank, who pursued this method has delineated the muscular fibres of the thoracic duct of a horse. Some of these fibres are

²⁰ Cooper in Medical Records and Researches for 1798.

²¹ It is proper to observe, that though muscular power, cannot with propriety, be assigned to the vessels through which the sap of vegetables circulates, neither can their function be accounted for by capillary attraction, since that fluid ceases to circulate in the dead fibre. In both animal and vegetable life, "the beginning of absorption, may, or may not resemble the attraction of capillary vessels in dead matter, but the power of propelling the fluids depends on the living power of the vessels."

circular, others are spiral, and the course of many is irregular and ill-defined. ²²

The external coat serves only to connect the vessel to the surrounding parts, and is composed of the common cellular membrane. In anasarca the water pervades this as well as every other part of that membrane, and by separating the vessel from its connections renders it more visible. The cellular coat is perforated by the blood vessels and nerves which ramify upon the muscular and internal coats.

SECTION. II.

Course of the Absorbent Vessels.

THE superficial absorbent vessels of the lower extremity, rise from the whole surface of the toes and foot, and ascend towards the knee. Those from the inner surface of the foot, pass

²² Cruikshank's Anatomy of the Absorbent System, 2nd. edition, plate 4.

"The second coat, I apprehend, consists chiefly of muscular fibres, running in every possible direction; the greater number take the circular direction, and surround the internal membrane." *Sheldon's Anatomy of the Absorbent System.* p. 6.

behind the inner ancle, anastomose with others which pass anterior to it, and are spread out on the inside of the calf of the leg. They accompany the saphena major vein along the thigh, anastomose very freely, and form twelve or fourteen trunks which terminate in the inguinal glands.¹

The deep seated vessels have their origin on each side the toes. Part of them accompany the anterior tibial artery, but the greater number follow the course of the plantar and posterior tibial arteries to the ham, there they are joined by the anterior tibial absorbents, and by those superficial vessels which arise on the outside of the foot, and which accompany the lesser saphena vein. Emerging in two considerable branches, they accompany the femoral artery, and pass with it under Ponpart's ligament.

Being joined by the internal iliac absorbents, and by those from the posterior part of the thigh, penis, scrotum, and from the parietes of the abdomen, they form a considerable plexus,

¹ Cruikshank's Anatomy, p. 149.

and accompany the iliac artery to the vertebræ of the loins. On ascending the anterior surface of the bodies of the vertebræ, they approach the corresponding vessels from the other extremity, and the other side of the pelvis, and by their union, form the commencement of the thoracic duct under the left crus of the diaphragm.² The thoracic duct is dilated at its commencement into a pyriform pouch, or bag, which in some animals is considerable, and is called the receptaculum chyli; because, the absorbent vessels which convey the chyle from the intestines terminate in it.

The intestinal absorbents have usually been called lacteals from the colour of their contents, but they not only carry the nutritive matter which is furnished by the food, but the serous fluids which have been exhaled into, and lubricate the abdominal cavity. They arise from the villi of the small intestines by open mouths. Their radicles are too minute to be discovered by the eye, but from fifteen to twenty

² Cruikshank's Anatomy, p. 167.

have been counted on one villus;³ which unite, and form a single vessel:

They are divided into a deep seated, and a superficial set; the former are covered by the muscular coat of the intestines, and accompany the arteries and veins, every blood vessel having its attendant absorbent; the latter run immediately under the peritoneum, and almost always longitudinally.⁴ They decrease in number, and increase in size, as they converge towards the root of the mesentery, where, they ultimately form, one, two, or three trunks. In this course they anastomose with each other, and with the absorbents from the liver, and diaphragm.

From the crus of the diaphragm, the thoracic duct passes under the aorta to the right side of that vessel, and after it has entered the thorax, through the aortic orifice of the diaphragm, runs between it and the vena azygos. It is bound down to the spine, and follows its

³ Cruikshank's Anatomy, p. 59.

⁴ Ibid. p. 147.

incurvations. In the upper part of the thorax it is again found on the left side of the vertebral column. It passes under the arch of the aorta, behind the inferior thyroid artery, and upon the longus colli muscle, where it forms a considerable curve, and descends to its termination in the angle between the left subclavian and left jugular veins. In this course its size is exceedingly various; it often divides into two or more branches, which unite, subdivide, and unite again. This is more particularly observed, where it receives the contents of the absorbents from the left superior extremity, and of the numerous branches which accompany the left jugular veins.

The absorbents of the kidney, liver, stomach, spleen, pancreas, and of the heart and left lungs, pour their lymph into it. The vessels from the left lobe of the liver, and the left side of the diaphragm take their course along the anterior mediastinum. In consequence of their anastomosis with the intestinal absorbents, they are frequently filled with chyle.

Another trunk of the absorbents enters the right jugular and subclavian veins. It receives the lymph from the right superior extremity, the right side of the head, neck, heart, liver, the right lobe of the lungs, and the right side of the diaphragm.⁵

SECTION III.

Structure of the Absorbent Glands.

“BETWEEN the extremities of the absorbent vessels and their trunks, numerous small glandular bodies are interposed,” which serve as receptacles for their contents. They are round, or oval in the human subject, and sometimes flattened on their anterior and posterior surfaces like an almond. In the extremities, and on the surface of the body, they are stronger than within the thorax or abdomen, and will bear a larger column of mercury without bursting.

⁵ Hewson.

They are of various colours. On the mesentery, where they frequently amount to one hundred and twenty, or one hundred and fifty, and according to Ruysch to a greater number, they are sometimes distended with chyle, and appear perfectly white. In cases of jaundice, they become yellow near the liver, from the transmission of bile; whilst in the lungs they are of a dark blue or purple colour, and sometimes black. In the extremities of the young subject they are red, but become paler with age.¹ Their size also decreases with their colour, for as the exhalent vessels become less active, there is of course little lymph to be re-conveyed, and the glands must accommodate themselves to the diminution. Their great vascularity, irritability, and action, in young subjects, explain their peculiar tendency to disease at that period of life.

Ruysch, whose accurate anatomical knowledge, entitles his opinion to the greatest respect, believed, that the glands on the mesentery

¹ Cruikshank's Anatomy, p. 72.

disappeared in the latter part of a long life. Haller and Dr. Hunter were also of this opinion, but its inaccuracy is now generally admitted. The vessels which arise from the surfaces of the body, and terminate in these glands are called *vasa inferentia*; those which emerge from the gland, and which arise from its surface, like the radii from each villus of the intestine,² are called *vasa efferentia*. The *vas inferens* divides into a considerable number of minute branches, before it dips into the gland. Ten, twelve, or fourteen have been counted entering a gland, from which not more than one *vas efferens* has arisen. Sometimes three, four, or even six emerge from it; but they are generally less numerous, though larger in size, than the vessels which entered its substance. The branches which pass towards the gland, but which do not enter its substance, form a plexus of vessels around it, anastomose with the *vasa efferentia*, and pass with them towards another set of glands, to which they become *vasa inferentia*. The

² Cruikshank.

vessels which arise from these second glands, terminate in the like manner in others, still nearer the trunk of their system. This, though a general law, has been more particularly observed on the mesentery, and constitutes, what authors have called, the first, second, and third order of vessels and glands.

The glands seldom exist alone, but are found in clusters, and are connected by the vessels. They are united together in quadrupeds, but when this is observed in the human body it is the consequence of disease. In the lower extremity, they are situated in the ham and groin, and are found along the iliac vessels, in the cavity of the pelvis, on the omentum, mesentery, vertebræ of the loins, on the inside of the sternum, in the flexure of the fore-arm, the axilla, beneath the pectoral muscles, under and below the clavicle, under the chin, and along the whole course of the jugular veins. There is sometimes a single gland about the middle of the tibia, and on the inside of the ulna.

The coat of the gland is smooth and polished. It is formed by the condensed cellular

membrane, and is pervaded by a fluid which is found principally in children. Haller calls it "*succus proprius glandularum.*" It is of various colours, but most frequently white.³ It contains globules like milk, and is no doubt a secretion from the neighbouring arteries, but its use is little understood.

The glands are so loosely connected to the surrounding parts, as to be moveable in every direction. They are plentifully furnished with blood vessels, and, when finely injected, are uniformly red. Messrs. Charles Bell,⁴ Soemmerring,⁵ and Richerand,⁶ maintain, that the glands are formed by a convolution of vessels. This opinion has the support of many respectable physiologists; but Mr. Cruikshank has clearly demonstrated that they are cellular, and that their cells have transverse communications with each other. Malpighi, Nuck, and Haller had indeed ⁷ previously asserted the same thing; but their testimony was in

³ "*Succum, glandulis conglobatis inesse album serosum lacte tenuiorem, in juniore animali potissimum conspicuum, id quidem certum est.*"

⁴ Bell's Anatomy, vol. iv. p. 297.

⁵ Soemmerring de Corp. Human. Fabric. Tom. V.

⁶ Richerand's Physiology, p. 108.

⁷ Cruikshank.

some degree contradictory, and their conclusions appear to have been drawn from imperfect premises. Mr. Abernethy has been very successful in his enquiries into the structure of these bodies. He “injected the glands of the groin and axilla of horses with wax, and afterwards destroyed the animal substance, by immersing them in muriatic acid. In some, it appeared in very small portions, and irregularly conjoined, which proves that it had been impelled into minute cells.⁸ In others he found only one solid lump of wax, in which cases, it appeared sufficiently clear, that the glands were formed internally of one cavity, and were not, as is commonly the case, composed of many minute cells.”⁹

Besides adducing other proofs, he mentions the following. “A red coloured waxen injection thrown into the mesenteric artery of a whale, collected in several separate heaps about the root of the mesentery; and soon increased to the size of an egg. A yellow

⁸ Philosophical Transactions for 1796.

⁹ Ibid.

injection by the veins exhibited a like appearance; some of the lumps increased by this means to the size of an orange." "That the lymphatic glands, in most animals, are cellular," Mr. A. concludes, "will not be doubted; but that they are sometimes mere bags," he thinks, "equally probable."

In the whale, many of the vessels terminate by pouring their contents into the bag of the gland, whilst others pass through its substance: "So that it appears, that chyle passes two ways into the thoracic duct; one through those lacteals, which pour the chyle into bags; the other, by the plexus, on the inside of the bag, through which the lymph is conveyed to the thoracic duct, as imbibed by the intestines."

SECTION IV.

Physiology of the Absorbent Glands:

THE use of these glands is very imperfectly understood. Mr. Abernethy has proved that they secrete a mucaginous liquor, but we

are entirely ignorant what changes this secretion produces in the contents of the gland. It is perhaps idle to indulge in hypothesis; but it appears probable, that this liquor acts upon the lymph, like the gastric juice upon the food. The uniform qualities and appearance of that fluid cannot be otherwise explained, for if they had no power of changing its properties, we should have bone, oil &c. floating in it. The importance of the glandular functions, may also be inferred, from the great care which nature has observed, in not allowing any absorbent vessel to enter the trunk of its system, without having passed through them.

Many other reasons might safely be urged which tend to establish this opinion. Milk, when injected into the veins of a dog, is immediately fatal;¹ whilst if absorbed from the intestines it is highly nutritious. The power of converting it into nutriment, or, at least, this striking difference in its effect, does not entirely depend on the action of the stomach,

¹ Young on Opium. p. 6.

for it is at least innoxious, when injected into the rectum and absorbed from it.

It might also be assumed in support of this opinion, that the glands are most numerous, where this power would be most necessary, viz. on the mesentery. It is to be observed further, that they do not exist in the lower orders of animals, because life is more tenaciously retained, as the animal descends in the scale of existence, and the admission of extraneous matter is therefore less likely to destroy it. This is the case in the whole class of amphibæ and fishes.²

² Hewson's Experimental Inquiries.

CHAP. II.

THE CHEMICAL PROPERTIES OF CHYLE AND
LYMPH.

THE small diameter of the absorbent vessels renders it difficult to obtain their contents in a sufficient quantity for chemical analysis. The chyle and lymph on exposure to the atmosphere, coagulate and separate, like the blood, into a crassamentum and a serous fluid. The degree of coagulation depends on the strength of the animal,¹ but becomes more perfect towards the thoracic duct.² In a case, which we shall hereafter have occasion to notice, the chyle had rather more of a chalky white colour than milk; it was sweet and pleasant to the taste and smell, and on standing, an oleaginous matter like cream swam upon its

¹ Hewson's Experimental Inquiries. Cruikshank's Anatomy of the Absorbent System.

² Vauquelin.

surface.³ It contains globules, which are much smaller than those of the blood, and on these globules its colour appears to depend. It imparts its colouring matter to water, and coagulates in it.⁴ Though perfectly white in the absorbent branches, it assumes a roseate hue towards its termination in the subclavian vein; and is more strongly marked by exposure to the air.⁵ This alteration in its colour probably depends on the absorption of blood from the veins. It contains an alkaline muriate and white phosphate of iron.

If the crassamentum of the chyle be washed in water, it forms small white fibres, which have less strength, and elasticity, and a less fibrous texture, than the fibrine of the blood. It is more readily and completely soluble in caustic potash, and therefore nearly resembles albumen.⁶ It is coagulated by alcohol, which likewise dissolves a fatty matter insoluble in

³ Philosophical Magazine, vol. ix.

⁴ Monro on the Dropsy, p. 18.

⁵ Diction. des Sciences Medicales &c. Art. Chyle by M. M. Dupuytren and Thenard, Emmert and Vauquelin. Also Edin. Med. and Surg. Journal, for July 1813.

⁶ Ibid. vol. ix. p. 348.

alkalies; this matter is contained in the serum of the chyle, and in the brain.⁷

The serum of the chyle consists almost entirely of albumen and water. It restores the colour of turnsol reddened by acids, and contains therefore an uncombined alkali. The albumen may be precipitated by heat, alcohol, &c.

THE LYMPH may be considered as containing the worn-out particles of the body, and the serum which has been effused into the different cavities; but the relative proportions of its constituents are imperfectly understood. Dr. Monro has seen it flow from wounds where the absorbent vessels had been injured, but he paid no attention to its analysis.⁸ In a case related by Mr. Patch, it appeared like scalded milk, and on being heated over a candle, soon turned to a soft curd.⁹ This is so different from its common qualities, that it had probably undergone some alteration in the ulcerated part. Mr. Hewson asserts, that he has seen

⁷ Vauquelin.

⁸ Edinburgh Medical Essays, vol. v. p. 327.

⁹ Ibid. p. 330.

it coagulate on the edges of wounds.¹⁰ When contained in the vessels, it resembles water in fluidity, is of a pale yellow, or sulphur colour, and does not, like the chyle, contain globular particles, for when viewed with a microscope it has the appearance of a homogeneous fluid.¹¹ It is coagulated by heat, acids, and alcohol. It turns the syrup of violets green; and is precipitated by calcareous and metallic salts. The coagulum resembles the fibrine of the blood, and is in perfect solution in the vessels.¹² To the taste it is bland and saline. When evaporated to dryness it resembles gum acacia, is pellucid as amber, and has saline crystals upon it.¹³ If reduced to one half its original volume, it assumes, according to Soemmerring, a gelatinous appearance; but the lymph which he analyzed was taken from an absorbent in the leg, and probably was not so perfectly animalized as it

¹⁰ Experimental Inquiries, Part. II. p. 198.

¹¹ Young's Introduction to Medical Literature.

¹² Ibid.

¹³ Soemmerring de Corp. Human. Fabrica, Tom. V. p. 416.

would have been nearer the thoracic duct. It resists putrefaction,¹⁴ but when this process takes place, it is rendered turbid, emits a cadaverous smell, and becomes puriform.¹⁵ The power of resisting putrefaction is much increased by the powder of oxymuriate of mercury, and particularly by camphor. Lime water retards it longer than the powder of bark.¹⁶

The serous part of the lymph is of a pale yellow colour, is not capable of being coagulated, and contains sulphur and phosphate of lime.¹⁷

¹⁴ Soemmerring de Corp. Human. Fabrica, Tom. V. p. 416.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Fourcroy Syst. des Conn. Chim. Tom. IX. p. 165.

The analysis of these fluids has not been sufficiently extended, to enable us to trace the changes which are produced in them by disease.

CHAP. III.

DISEASES OF THE ABSORBENT VESSELS.

SECTION I.

Inflammation of the Absorbent Vessels.

THE great irritability of this system of vessels, would lead us to infer that they are very susceptible of inflammation,¹ but it is a singular

¹ Although it may not appear necessary, it cannot, I hope, be considered wholly irrelevant, to attempt in the present inquiry, a general explanation of inflammation. But previous to the consideration of a disease which is produced by arterial action, I beg leave to remind the reader, of those points in the structure of the heart and arteries, which direct their action in health, and appear to influence their diseases.

The arteries possess muscular power, by which they contract upon the blood, and elasticity, by which they are again dilated. The power of contracting increases as their diameters diminish; the elasticity decreases in the same ratio, until it is entirely lost in the minute branches, and they have no pulsation. For this observation we are indebted to the genius of Mr. Hunter.

The quantity of sensation is also very different in different parts of the sanguiferous system. In the muscular fibre of the heart, it is so obscure, that inflammation is not attended with pain, or only in a distant part; in the coats of the large blood-vessels too, it is, I conceive, by no means acute, and I ground this belief on the well known fact, that ulceration or rupture of their coats is attended with no uneasiness. The power of sensation in fact, is great only in the minute branches, as it is on their coats alone that the ramification of nerves is considerable.

feature in their history, that this affection has scarcely been observed internally; whilst few diseases come immediately under the cognizance of the surgeon, which do not occasionally

As every part of the body receives a quantity of blood proportioned to its sensation, we may justly infer that the coats of the secerning vessels, are more highly organized than the heart and large arteries, and more immediately influenced by the nervous system. This, it may perhaps be argued, is rather asserted than demonstrated, but it will be sufficient for my purpose to shew that facts appear to authorize the opinion. A more trifling surprise will excite a blush, than is necessary to influence the action of the heart, or large arteries. The same properties, then, which direct their healthy action will also regulate their diseases. If we inquire into the phenomena which these present, we learn that the first act of inflammation consists in the transmission of a greater quantity of oxygenated blood to some part of the body, than it receives in health. This stimulates the vessels and nerves to greater action, and the increase of contraction is most visible in the smallest branches, for reasons which I have already endeavoured to point out.

This principle of contraction in the minute branches, appears to be not only the leading phenomenon of general inflammation, but draws the line of distinction between the different species of that disease. Where the power is great, there is greater resistance to the passage of blood through the part, and the redness and swelling remain on pressure being applied: as the power decreases, there is less tension, and a temporary pressure causes the redness to disappear by forcing the blood through the inflamed vessels. It may be traced therefore in regular gradation, from the most violent phlegmon, to erysipelas, and from the latter disease to petechial effusions, where the contractile power ceases, and death generally closes the scene.

I am aware that in Mr. Hunter's experiment on the ear of a rabbit, the arteries were larger than in the one which had not been inflamed; but granting all that this experiment appears to prove, it does not, I trust, affect the positions which I have advanced, since the increased calibre was evidently

produce it in the extremities, and in the external parts. A punctured or lacerated wound, the operation of bleeding, irritating ulcers, a schirrous tumour, or inflammation by whatever

confined to the pulsating arteries. Indeed, if the secerning vessels were enlarged by inflammation, anatomists would find their injections returned by the veins, where this affection had existed, a supposition which will not, I think, be verified.

The greater quantity of red vessels in an inflamed part, is advanced as another proof of their increased size, but may very readily be explained from other causes; for the vessels of the conjunctiva for instance convey a colourless fluid, and their diameter therefore cannot be discovered except red blood be admitted into them, yet this admission depends entirely on the force which the neighbouring arteries exert upon that fluid.

When inflammation is produced on mucous membranes, the increased contraction is far from being a distinguishing symptom, because the vessels which secrete mucus, are not so minute as the common secerning arteries; but if the inflammatory action be very violent, the rule will be strictly applicable.

The want of secretion in inflammation and in fever, for which Dr. Cullen accounts, by a spasm of the extreme vessels,* and which is strongly insisted on by the late Dr. Currie† as the leading feature of the latter disease, appears much more simply explained by this view of the subject. What they supposed to be superadded by the *morbid cause* of inflammation and of fever, is strictly an effect of natural structure, and a necessary consequence of every increased arterial action.

As this power of contraction is the immediate effect of the principle of life, it is self-evident, that not only the *degree* of action, but its *duration*, will be regulated by that principle: and it has been justly observed that "where the vital principle abounds in greatest quantity and perfection, it is most loosely combined, and most easily destroyed." The emotion of joy, or of grief, will destroy life in man, whose

* Cullen's First Lines of the Practice of Physic.

† Currie's Medical Reports, vol. 1. first Edition.

means produced, are commonly exciting causes. The irritation produced by the action of morbid matter, may also be a means of bringing it into notice, but this is not so frequent

organization is more perfect than that of any other animal, whilst if we descend, we find frogs, tortoises, &c. live a considerable time without either head, heart, or lungs, and revive after vital action has been almost suspended, during a whole winter. The fact, indeed, is too general to be disputed.

Not only different animals, but different parts of the same animal, are regulated by this law, and if, as I shall endeavour to shew, the rule be applicable to the arterial system, it will explain the total relaxation which takes place in the minute branches, whilst the heart and large vessels retain considerable contractile power.

Without this knowledge, it is difficult to conceive, why a part does not retain the properties which are annexed to it in health, in proportion to the degree in which it is organized, and to its power of acting. That the reverse of this proposition is observed in the circulating system, is shewn, almost by every disease which immediately influences it.

In syncope, the body is bedewed with a cold sweat, which can be explained only by the minute vessels losing their contractile power, yet the heart has not ceased to contract. The effusion of blood from the minute branches, in the scurvy, and in cases of petechiæ without fever, can only be explained on the same principle, and affords additional confirmation of its truth.

Here, we have spoken only of those diseases which are attended with diminished action, but the same phenomena are attendant on the latter period of diseases where the action has been excessive. The hot stage of an intermittent fever is succeeded by profuse perspiration, and the fatal termination of fever is preceded by petechial effusions. Inflammation produces the formation of pus, or coagulable lymph is thrown out.

This observation would appear to illustrate the difference which exists in the fevers of different climates. In countries where the heat is oppressive, and the body is

an occurrence as Mr. Cruikshank would lead us to believe.

We often find the glands inflamed when, as far as they are cognizable to our senses, the

constantly exposed to the action of a strong exciting power, an increase of arterial action will soon be followed by relaxation of the extreme vessels; hence continued fevers are almost unknown in such climates. In subjects who suffer from the jail fever also, there is early relaxation of, and extravasation from the extreme vessels, because confinement and poor diet have previously impaired their power.

But the muscular power of the extreme branches is so important, and the equilibrium which they serve to support is so necessary to the existence of life, that either a great excess, or a great privation of action is requisite to destroy it; for the degree of nervous influence is considerably diminished in the cold stage of fever, yet it is attended with proofs of this power. This, which Dr. Cullen called spasm of the extreme vessels, when considered as one effect of contagious matter, and when conjoined, as in his theory, with atony in the same part, appears a contradiction of terms, and is generally considered the weakest part of his doctrine. The opponents of this celebrated writer must admit, that he traced the operations of disease, with accuracy and success. His work will be a lasting record of this truth, but his warmest admirers must also confess, that his theories are often hypothetical and defective. He has attributed the effect of natural laws, to the agency of extraneous causes, and does not appear to me to have distinguished between the proper actions of the part, and those, if any, which are superadded by infection. I admit that the introduction of human effluvia into the system, *may* produce feverish actions, but I see no symptom which cannot be explained without such an admission.

Dr. Currie also insists on the specific debility, and the specific action in fever, with considerable force, and inquires why, if this be denied, is not the debility which attends fainting, followed by feverish action, as well as that which exists in the cold stage of a feverish paroxysm? To this

vessels entirely escape ; and indeed, a very accurate observer has almost denied their susceptibility to this action. ²

Inflammation of the absorbent vessels is known by the presence of red lines, perhaps a quarter of an inch in diameter, generally extending towards the trunk of the system, but sometimes also in a contrary direction. ³ It may be distinguished from inflammation of a cutaneous vein, by applying a ligature around the limb, by which the vein will become visible, and it can scarcely be mistaken for any other complaint. Considerable pain is experienced on its commencement, and on

question it may be answered, that if the cessation of action in the cold stage of fever, become so complete, as to deprive the body of sensation, and the minute arterial branches of their power of contracting, not only the feverish action but life also would probably be destroyed ; because such an effect would be gradually induced, and re-action would not immediately follow. But, if a quantity of blood be withdrawn from the system in the hot fit, and if fainting be thereby *suddenly* induced, the chain of action which constitutes the complaint, is often destroyed. It is surely inconsistent then, to expect, that the means which destroy fever in one case, should produce it in another.

I request the indulgence of my reader for this long digression ; the inquiry might be carried through an extensive practical field, but I feel that it is here inapplicable..

² Abernethy's Surgical Works.

³ Ibid.

examination, a cord-like feel is communicated to the fingers. This is produced by the extension of the disease to the cellular membrane in which the vessel is imbedded. The patient's countenance is expressive of anxiety, which is much increased if the inflammation have extended to the absorbent glands. The redness soon becomes perceptible, and is of a pinkish colour, as though a thin substance intervened between the inflamed part, and the eye of the observer. It becomes gradually deeper, but seldom possesses every character of phlegmon; more commonly, it approaches to erysipelas, and like the redness in that disease, it disappears by pressure. The hardness and cord-like feel increase, unless the skin become more closely adherent to the parts beneath. This adhesion generally terminates the inflammatory action, and as the redness disappears it leaves a purple, or black colour, in the part.

When the irritating cause is violent, or long continued, or when the habit has been previously reduced; instead of this general

adhesion, we have either a succession of small abscesses, or an effusion between the cutis and cuticle, and the cellular membrane which surrounds the vessel, is thrown off by successive sloughings.

When abscesses are formed, they are confined to the cellular membrane which is exterior to the vessel; or, if the vessel be involved in them, adhesion must generally take place, which obliterates its cavity, and prevents the discharge of its contents.

As the inflammatory action disappears, the swelling which is often conjoined with it, changes its characters, and becomes œdematous. This is occasioned by the debility which follows an increased action, the œdema is therefore, *cæteris paribus*, proportioned to the size and importance of the vessel whose action is thus temporarily suspended.

The late Mr. Trye of Gloucester,⁴ and more lately, Dr. Ferriar of Manchester,⁵ attribute the swelling which occurs in phlegma-

⁴ Essay on the Swelling of the Lower Extremities, &c.

⁵ Medical Histories and Reflections.

tia dolens to an inflammatory action of the absorbent vessels; but it requires all the learning and ingenuity of these distinguished practitioners, to support this opinion, and to account for the diversity of symptoms in the two diseases.

In phlegmatia there is no redness on the skin, nor is the pain confined to the course of the absorbents; it generally occupies the whole limb, and the swelling only becomes œdematous at a very protracted period of the disease. I am by no means disposed to assert, that inflammation of these vessels is never observed in the swelling of the lower extremities of lying-in women, but when it does exist, it depends, I conceive, on their participation in the general inflammatory action, and is therefore, rather a consequence, than a cause of the disease.

SECTION II.

Treatment of Inflamed Absorbent Vessels.

IN no instance should the practice of the surgeon be more strictly regulated by the

strength and age of the patient, and by the nature and extent of the exciting cause of disease; than in an inflammatory affection of these vessels.

In the most simple cases, where the complaint is produced by friction, or is combined only with inflammation in other parts; the application of a bread and water poultice, and the occasional exhibition of a purgative, will frequently remove the complaint. But when the patient is advanced in years, if the strength have been previously reduced, and the primary disease assume an erysipelatous appearance, the bowels should only be kept moderately open, and the strength of the patient supported.

But the inflammation, though considerable, may frequently dwindle into insignificance, when compared to the disease with which it is accompanied, and which gave rise to it. In irritating ulcers of long standing, particularly if combined with caries in the bones, the constitution, worn out by the constant irritation, will excite immediate attention, and must be supported by

a free exhibition of wine, and bark, and by nutritious food, however inconsistent such treatment may appear with inflammatory symptoms.

If from the situation of the disease and the characters of the primary ulcers, the inflammation is suspected to be the consequence of the absorption of venereal matter, the practitioner will be aware that local applications have little influence on its progress, and he will chiefly rely on a liberal exhibition of mercury.

When vesicles have formed within the cuticle, the serum which they contain should be discharged, and a common poultice applied upon the part, until the sloughs have separated.

If pus have been formed in the cellular membrane which surrounds the vessel, the inflammatory action in its coats often speedily subsides, the skin regains its natural colour, and a considerable time elapses before the process is completed by the ulceration of the integuments. The absorbent vessels which arise from the cavity of the abscess, may in such cases frequently be excited to remove the

contents ; and friction with stimulating embrocations, pressure, or the electric shock, are used for this purpose with considerable success. But if these remedies be not speedily successful, I prefer puncturing the abscess with a lancet, applying afterwards a cold solution of the zinci sulphas, by which adhesion will take place, and the cavity of the abscess be obliterated. This practice will be more particularly successful, if the skin which covers the abscess be thin, if it have little thickening around its base, and appear flat upon the surface rather than inclined to point. On the contrary, where the inflammatory action continues after the abscess is formed, it requires only the application of a common poultice, and must be treated like other abscesses after ulceration has taken place.

SECTION . III.

Varicose Absorbent Vessels.

Dilatation of the absorbent vessels so frequently occurs, that it may be considered

natural to them.¹ As in the veins, it may sometimes probably originate from debility of the coats of the vessel, and from rupture or disease in the valves; but it is often the effect of other diseases, as when the vessel is enveloped in the progress of tumours,² or when ossific matter is deposited in the absorbent glands. A ligature applied round the limb of a dropsical patient immediately after death, will also produce this appearance.³

A case is related by Soemmerring, in which the absorbent vessels of the lower extremity were varicose. It occurred in a woman who laboured under ankylosis of the knee, and was attended with œdema of the foot.⁴

The thoracic duct is not entirely exempt from this occurrence, though its extensive dilatation is by no means common. A remarkable instance is narrated, where it was nearly

¹ Cruikshank's Anatomy of the Absorbent System, 2nd. Edition, p. 92.

² Soemmerring de Morb. Vas. Absorb. p. 43, and Trye's Essay on the swelling of the lower extremities, p. 42.

³ Soemmerring loco citato.

⁴ De Corp. Human. Fabrica, Tom. V. p. 416, and 420, et De Morb. Vas. Absorb. p. 44.

the size of the subclavian vein: the subject appeared to be about forty years of age, and there was neither obstruction in the heart, in the venous or pulmonary system, nor at the termination of the duct into the subclavian vein.⁵ It was accompanied with a proportional enlargement in the deep seated absorbents of the extremities, and probably therefore was not the effect of disease.

The learned professor Soemmerring repeats from an anonymous author, that the size of the intestinal absorbents is proportioned to the temperament of the individual, and he adds, that they are regulated by the size of the body, being much smaller in dwarfs than in giants; what reliance can be placed on the accuracy of these opinions, I am unable to determine.

* * * *

⁵ Cruikshank's Anat. &c. 2nd. Edit. p. 207, and plate v. and Baillie's Morb. Anat. p. 109, 3rd. Edit. 8vo.

The former author also found "two trunks of the absorbents in the lungs of an ordinary sized turtle, each of them as large in diameter as the cava superior in the human subject."

SECTION IV.

Treatment of Varicose Absorbent Vessels.

This affection so rarely comes under the cognizance of the surgeon, that it appears almost unnecessary to speak of its treatment.

When uncombined with other diseases, and when situated in a convenient part, a bandage may be applied to support the coats of the dilated vessel.

SECTION V.

Rupture of the Absorbent Vessels.

A rupture of the coats of the absorbent vessels, though a rare occurrence, may be occasioned by obstruction, or by their own action. The vessels within the cavities are most liable

to this accident, being weaker than those in the extremities.

In Mr. Astley Cooper's experiments¹ which were instituted to shew the effects of a sudden compression on the thoracic duct, rupture uniformly took place in the receptaculum chyli. This is easily accomplished, after an animal has been fed with milk, by a few moments' pressure on the venous extremity of the duct;² but when the obstruction to the passage of the chyle and lymph is gradually produced, the vessels accommodate themselves to the change of circumstances, and the anastomosing branches convey the fluid to the heart.³

When the orifice of the ruptured vessel remains open, its contents are effused into the adjoining cellular membrane, or into the adjacent cavity, and dropsy is thereby induced. Lower produced this effect by introducing his fingers between the ribs of a living dog, and rupturing the thoracic duct with his nail.

¹ Medical Records and Researches, for 1798.

² Ibid.

³ See Chap. on Obstruction of these Vessels.

The animal died after languishing a few days, and two pounds of chylous liquor were found in the right cavity of the thorax. ⁴

Dr. C. Smith of New Brunswick has related a case of an abdominal dropsy, where chyle was discharged by tapping. ⁵ A similar instance is recorded by Dr. Percival which had occurred to Dr. Huxham; ⁶ but the most remarkable case of chylous dropsy which I have met with, is recorded by M. Poncy, jun: The patient, who was only nineteen years of age, died after having been tapped the twenty-second time; and the quantity of chylous liquor which was evacuated, amounted to two hundred and eighty nine french pints. At the commencement of the operation the fluid resembled milk, but towards the conclusion became more like cream, and remained upon the surface. During the first five days it continued unaltered, but a greasy substance, somewhat whiter than butter, afterwards appeared upon it.

⁴ Tractatus de Corde &c. Edit. tertio. p. 207.

⁵ Philosophical Magazine, vol. ix. p. 16.

⁶ Percival's Medical Essays, vol. ii. p. 171.

On opening the body, the surface of the intestines was covered by a quantity of white creamy filaments, which had a slender adhesion to the parts, and a somewhat fibrous texture. These "lacteous concretions" were most abundant at the lower part of the abdominal cavity, towards the centre of the mesentery, and in the hypogastrium and groins.

The stomach and intestines were inflated with wind, and adhered to the liver, spleen, pancreas, mesentery and epiploon; the latter membrane was so much dissolved that there was only a vestige of it remaining; the mesentery, on the contrary, was much enlarged, and the liver, which was deeply lodged under the diaphragm, was flattened, and extended in bulk, and was adherent to the spleen, stomach, pancreas, and diaphragm. The gall bladder was empty.

The iliac glands on both sides were enlarged, and contained a white thick matter, which resembled boiled cream. It was miscible with water, and formed with it a white liquor similar to that which had been discharged in the operations.

At the commencement of the jejunum, there was a membranous bag, which was filled with a milky white liquor; at the bottom of the bag, and in that part where the jejunum is fastened to the mesentery, was a round fistulous hole, through which a probe could be passed into the glandular part of the swelling. The tumour was very hard, and so large that it was with difficulty grasped with one hand. On dilating the opening, and following its direction, sinuses were discovered leading to both sides of the abdominal cavity. The mesentery appeared to have degenerated into a somewhat schirrous structure, and was built up by enlarged glands: similar ones were found in great numbers on the peritoneum, and the glands which accompany the thoracic duct, were also enlarged, and filled by a similar fluid.⁷

It is difficult if not impossible to distinguish the chylous from the serous dropsy,

⁷ Saviard's Surgery, p. 252,—255.

A case of chylous dropsy is related by Bassius. An orifice was discovered about the third or fourth vertebra, from

neither does it appear easy to assign in all cases, an adequate reason for the occurrence of the former disease. The appearances which were discovered in the very interesting case just transcribed, would lead us to believe that obstruction in the glands, or the pressure occasioned by their enlargement, was followed by dilatation of the vessels; and when the disease became more extensive, and the pressure or obstruction more general, the rupture appears to have taken place. But this cause did not exist in the first cases which I have quoted, for the patients recovered, and no glandular enlargement was discovered; neither is this symptom mentioned in the cases which are quoted below from the French Academy of Sciences, in the former of which the disease was apparently produced by, or at least occurred soon after, too violent an effort to raise a burden.

It has already been observed that the absorbent vessels of the extremities are stronger

which the chylous fluid flowed as from a fountain.

See also *Memoires de l'Academie des Sciences à Paris*, for 1700, and 1710.

than those within the abdomen, and are not so easily ruptured. The only case I know of upon record, in which this accident occurred, is related by Mr. Patch.⁸ I shall take the liberty to transcribe it.

“ A son of Samuel Wroth, of Crediton, in the
 “ county of Devon, about eleven years of age,
 “ and of a strong and healthy constitution, com-
 “ plained to his mother, on the eighth of January,
 “ that the linen in his breeches was very wet.
 “ About two months after, the boy made the
 “ same complaint;—when she examined him,
 “ and soon found a liquid, like milk, constantly
 “ issuing from a small imperceptible orifice near
 “ his left groin, which continued three days,
 “ and she believed that the whole discharge
 “ in that time, was not less than two quarts
 “ or five pints, which very much weakened
 “ him. A flux of the same kind, and from
 “ the same part, began again about six weeks
 “ after, and wept, but not continually, for
 “ near five weeks; from which the boy lost
 “ his appetite, and was grown so weak that

⁸ Edinburgh Medical Essays, vol. v. p. 330.

“ he was scarcely able to walk. There being
 “ only a little redness in the skin, about an
 “ inch above the inguinal gland, as if there
 “ had been a small pustule, without any pain,
 “ tumour or inflammation, made me suspect
 “ the truth of the report. Towards the end
 “ of the month the boy came under my care.
 “ Seeing the part perfectly sound, and the skin
 “ of a natural colour, I did nothing for
 “ him ; but, in a few days after, three or
 “ four spoonfuls of the discharge was brought
 “ to me. I immediately sent for the boy, and
 “ observed it to run from the small orifice
 “ down his thigh pretty fast, but it was quite
 “ stopped next morning, when I applied a
 “ small piece of common caustic on the orifice
 “ with proper bandage. After this application
 “ there was never any milky discharge.

If an absorbent vessel were ruptured without any external wound, the lymph would be effused into the cellular membrane, and anasarca produced. It was probably the knowledge of this fact, which led the late Mr. White to assign this accident, as the proximate cause of a very

painful swelling to which lying-in women are subject, and which he has called phlegmatia-alba-dolens.⁹ This very respectable practitioner believed that the rupture was occasioned by the pressure of the child's head, during the act of parturition, upon those absorbent vessels which pass over the brim of the pelvis: When the orifice made in the lymphatic healed, the diameter of the tube contracted, or perhaps entirely closed; the remaining vessels being unable to convey the usual quantity of lymph to the trunk of the system, a considerable distension and effusion must take place, and some time elapse ere the anastomosing branches could absorb the superabundant lymph.¹⁰ In support of this opinion, Mr. White has given the outlines of a pelvis where the bone was as sharp as the edge of a paper folder, and has adduced the well known fact of rupture in the uterus. But granting all that this author advances, it does not satisfactorily account for the effects which he en-

⁹ White's Inquiry into the swelling of the lower extremities, &c. part I, and II.

¹⁰ Ibid. p. 51. Part I.

deavours to assign to it; for the anastomosing branches are so extensive, that the obstruction must be indeed considerable to produce inconvenience; besides, there are many, and larger branches of these vessels tied in every operation for aneurism, than could be injured in parturition, yet no swelling is produced; the œdema on the contrary subsides almost immediately after the operation.

If the cause of ruptured uterus were the same as the cause of phlegmatia dolens, we might expect that the latter disease would occur at the same period with the former, or at least in the same patient, neither of which I believe have been observed. Again, we ought to expect it, after very difficult labours, whereas it is as frequently found after those which have been far otherwise. Neither are cases of rupture in the uterus, and of sharpened edge of the pubis, sufficiently common to account for the frequent occurrence of this disease.

Sometimes a perineal artery is ruptured, not by the pressure of the uterus against the bones of the pelvis, but from the distension of the part

by the head of the child, and as some absorbent vessels must also be ruptured, why does not phlegmatia dolens supervene?

These arguments are advanced on the supposition that Mr. White's opinion is correct, though he has by no means proved it. The improbability of such an accident is, I think, shewn, by the escape of the arteries and veins, though they have a much greater capacity than the absorbent vessels, are less capable of resistance, and are therefore more liable to injury.

It is almost unnecessary to mention, because the doctrine cannot require refutation, that Dr. Latham has attributed the swelling in rheumatism to rupture of the absorbent vessels.

SECTION VI.

Treatment of Ruptured Absorbent Vessels.

I am not able to point out any diagnostic symptoms which would lead the practitioner, with certainty, to foretell the existence

of a rupture in the absorbent vessels of the thorax or abdomen. But when on evacuating those cavities, there is reason to believe that this accident has taken place, it is of the utmost importance to prevent the re-accumulation of the fluid. A very small quantity of solid food should be exhibited, rest must be strictly enjoined, and small doses of opium frequently given, fluids by the mouth must be prohibited, and where the thirst is urgent the patient should be immersed in a luke-warm bath.

If the vessels be inconsiderable, and unconnected with organic disease, there is reason to hope for a favourable termination; but if the thoracic duct be injured, and if the injury be combined with disease of the glands the quantity of chyle or lymph which will escape from the former will be so great, that with the irritation of the latter disease, it will very probably destroy the patient.

Dr. Smith prescribed small doses of calomel,¹ but it appears to require very accurate

¹ Philosophical Magazine.

discrimination to administer it with advantage, for if the wound in the vessel be open, the calomel, by increasing the action of the absorbents, will cause a greater quantity of fluid to pass through the wound, and the extravasation will thereby be increased: but after the wound has healed, the exhibition of calomel will excite the vessels to remove the chyle or lymph which has been previously extravasated.

If the vessel be situated in the extremities, and connected with an ulcerated surface, it may either be secured by a ligature, or touched by the *argentum nitratum*, which stimulates it to contract, or produces a deposition of coagulable lymph, and obliterates the tube: After the eschar separates, there is seldom a recurrence of the *stillicidium*, and the wound heals, as in other parts.^a

If the lymph be effused into the cellular membrane, a roller applied accurately round the limb, will prevent its increase, and a

^a Patch in *Edinburgh Medical Essays*.

compress being placed under it, will produce adhesion between the sides of the vessel.

SECTION VII.

Wounds of the Absorbent Vessels.

Every accident which destroys the texture of the soft parts, must injure a number of absorbent vessels; but it is only where the vessel is considerable, and where, instead of its re-union, there is a constant flow of lymph from it, that it excites attention. This accident is liable to occur after bleeding in the arm or foot, and after the extirpation of tumours, of the absorbent glands, and other chirurgical operations:

Dr. Monro mentions two cases where a yellowish white fungus arose, from which such a quantity of lymph oozed, as made the dressing every day wet, and indeed became so considerable, that a spoonful could have

been collected in a very short time.¹ Hewson asserts that the fungus which Dr. Monro notices, consisted only of that portion of the lymph which had become coagulated on the surface.² But it is probable that the formation of this coagulum, will facilitate the healing of the wound, and that vessels may shoot into, and organize it.

Ruysch relates a case which occurred from opening a bubo, and though he does not notice the formation of a fungous substance, the exudation of lymph was striking, and gave a decided character to the case. “*Ex horum rudiori cohorte nuper quidam Bubonem venereum aperuit ante perfectam maturitatem, (qua in re culpandus non erat, sic enim et nos facere solemus) simul autem importunâ dextrâ suâ vas lymphaticum dissecuit. Mirum dictu, quantum lymphæ singulis diebus e vulnere effluxerit; omnia linteamina continue madefiebant. Tandem, concilii expers, à me idem exquisivit,*

¹ Edinburgh Medical Essays, vol. v. p. 328.

² Hewson's Experimental Inquiries, Part II. p. 198.

nesciens unde tantum liquoris quotidie promanaret.”³

If the external wound heal whilst the vessel continues open, the lymph is effused into the cellular membrane, and produces an anasarca, which continues until the orifice is united. The neighbouring branches then take up the extravasated fluid, and re-convey it into the circulation.

The thoracic duct, and the deep seated absorbent vessels, may be wounded by instruments which penetrate the cavities, or the muscular parts. Our judgment in these cases will be directed by the course of the wound, by the discharge which issues from it, and by the accumulation of fluid if the external aperture be united. Yet, Dr. Monro inflicted a wound on the receptaculum chyli

³ Ruysch Observat. Anatom. Chir. No. xli. p. 40.

Vanderlinden mentions three cases, one of which occurred in his own practice, and followed the operation of phlebotomy. One of these cases was extremely distinct, a small probe could be introduced into the orifice from which the lymph flowed, until its passage was obstructed by the valve of the vessel. This accident has occurred also to Haller: *De Corp. Human. Fabrica*, Tom. I. p. 318.

of a pig, which was cured in a very short time; and in the mean while, the effusion of the lymph was prevented by its coagulation. Bartholin mentions a case, which is quoted by Mr. Cruikshank, where the thoracic duct was wounded, notwithstanding which the patient lived a long time, “longa fuit tabes.” In a manuscript in my possession a case is quoted from Bohnius’ *Renuntiation. Vulner.* of a man, who was wounded in the duct, “at least the liquor and mucus that came out of the wound made it appear so; the patient was nearly cured, but by excess relapsed and died.”

SECTION VIII.

Treatment of Wounded Absorbent Vessels.

THE prognosis of a wound which penetrates the coats of an absorbent vessel, will be regulated by its vicinity to other important parts; the treatment will vary in like manner. All

wounds which penetrate so deeply into the thoracic or abdominal cavities as to injure the thoracic duct, will necessarily be attended with much danger, and the chances of recovery will be diminished by the participation of this vessel in the injury, and the debility which such an accident will produce.

The Surgeon can do little more than prevent inflammation by depletion, rest, and a strict regimen, and afterwards evacuate the fluids which may collect in the cavities.

In the extremities, various means have been adopted to suppress the flow of lymph. A roller will be generally useful. Ruysch, besides a bandage, applied clasps below the affected part; this treatment succeeded, and where it is insufficient, local applications may be added, such as alcohol, or the diluted mineral acids, which will cause the lymph to coagulate as it flows. When other means fail, the nitrate of quicksilver, or any other caustic, may be resorted to if the wound in the vessel cannot be secured by ligature.

SECTION IX.

Obstruction of the Absorbent Vessels.

WHEN the valves of the absorbent vessels become thickened, they project into the tube, and their edges being joined together, form a barrier to the passage of the fluid which the vessel conveys. Mr. Astley Cooper attributes this thickening to a scrofulous action;¹ it is probably the effect of inflammation, since a curd-like substance was contained between the thickened laminæ. The formation of a fungus within the duct, which was observed in the same case, and contributed to the obstruction, probably originated in similar actions.

In another case, two thirds of the course of the thoracic duct was filled by a caseous matter, which had been secreted by its coats, or absorbed from a diseased testis.²

¹ Medical Records and Researches, for 1798.

² Ibid. See also Cruikshank, p. 47.

There is sometimes a deposition of ossific matter within the vessel, though the coats are free from disease;³ the most remarkable instance of which is related by Mr. Cheston.⁴

On opening the body of a young man of twenty-two years of age, who had been admitted into the Gloucester Infirmary for pains in the back, hips, &c. more than half the pelvis was found occupied by a confused irregular mass, seemingly formed of schirrus, cartilage, bone and stone. A large substance which appeared cartilaginous, but which on drying, was found to be perfect bone, covered the bodies of the vertebræ, to somewhat above the kidneys. The lungs were also studded in many parts with a similar cartilaginous substance. On raising the aorta from the spine, a singular firmness was found like packthread, exactly in the situation of the thoracic duct, and was indeed

³ It is singular that the absorbent vessels have been found filled with ossific matter in cases of rickets, where a defective secretion constitutes the disease. It was probably rather a separation from the lymph which was contained in the vessel, and had been returned from the bones, than a secretion by the coats of the absorbent vessel.

⁴ Philosophical Transactions, vol. 70:

that vessel, which was completely filled with ossific matter, excepting at the lower bulbous part, commonly called the receptaculum chyli. There was room enough for air to pass between the coat of the duct, and the adventitious substance within it, so that the receptacle which before appeared flat, upon throwing in air became rounded and fully distended, but this air was totally confined to the receptacle and could not be forced up the duct in the smallest degree. The receptacle was then slit open, and an attempt made to pass a bristle up the duct, but this was found impossible. Mercury was endeavoured to be forced up the duct, but not the smallest particle would pass."

"The coats of the duct did not appear to have undergone any morbid change; for in some places, where the substance it contained was not so strongly attached but that the coats would admit of being raised from it, they were found in a perfectly natural condition: at other places, where the attachment was inseparable, there was a greater appearance of ossification

externally, but this arose merely from the thinness of the coats.”⁴

I am not acquainted with any case where obstruction of these vessels occasioned death, for the chyle and lymph are carried into the circulation, by the collateral branches; neither does the disease admit of relief from the Surgeon, if he were aware of its existence.

⁴ Consult Memoirs of the Academy of Sciences at Berlin for 1786,—7, and for 1792; and Soemmerring de Morbis. Vasor. Absorb. p. 45 and 92.

CHAP. IV.

DISEASES OF THE ABSORBENT GLANDS.

SECTION I.

Inflammation of the Absorbent Glands.

THE great irritability of these bodies, renders them liable to inflammation from various and very slight causes. ¹ Amongst the most frequent may be mentioned inflammation, wounds, irritating ulcers, and absorption of morbid matter. The inflammation is generally symptomatic, but in some rare instances it is an idiopathic affection.

¹ An instance has been frequently quoted from Mr. Hunter, where it was produced by the puncture of a small bright needle.

The disease, as in other parts, may be divided into two kinds, acute and chronic. Acute inflammation is evinced by pain, heat, throbbing, redness and swelling, and is generally attended with sickness, and a peculiar depression of the vital power; the pulse is small and quick; considerable perspiration succeeds, the bowels are sometimes costive and the urine scanty and high coloured.

As the inflammation proceeds, the swelling and sympathetic fever increase, the redness becomes constant, darker, and does not abate by pressure. A doughy feel succeeds to the formation of matter, which is sometimes preceded by distinct shiverings. As the abscess approaches the skin, it becomes more elastic, and bursts, as in other parts, by producing ulceration of the integuments. This termination more frequently follows inflammation which is excited by venereal matter, than from simple irritation;² because excitement from the latter source, produces adhesion of the surrounding

² Abernethy's Surgical Works.

cellular membrane which terminates the disease : but the constitution has little power of regulating the action of venereal matter, and it continues to stimulate until adhesion is destroyed:

The abscess is not always contained in the body of the gland ; it is most frequently exterior, and the enlargement continues until the mercury affects the constitution. The thickening which accompanies inflammation of these glands, is produced by the condensation of the surrounding cellular membrane ; and is more considerable in proportion to their natural size than in any other part of the body.

The character and appearance which the ulcer possesses, after the abscess has burst, depend also on the exciting cause. Where it is the effect of the venereal disease, it retains the thickened edge and base of the primary ulcer ; but when excited by common irritation, it will vary according to the degree of previous inflammation, and the constitutional powers.

SECTION II.

Treatment of Inflammation of the Absorbent Glands.

THE common means of treating inflammation, such as local blood letting, and cold applications must be sedulously adopted until the inflammatory action has abated; and the further reduction of the enlarged gland must be accomplished by friction, blisters, and electricity.

When pus is formed, fomentations and poultices will be necessary to promote its progress to the skin, and the ulcer must be treated like other ulcers. If a venereal origin be suspected, mercury must be super-added to the local treatment.

SECTION III.

Ossification of the Absorbent Glands.

WHEN the arteries which ramify on the substance of the absorbent glands, assume a disposition to secrete ossific matter, the diseased action commences at one or more points,

and is extended until the gland is converted into a bony mass.

When the disease occupies the bronchial glands, it excites considerable irritation, cough, fever, and expectoration of pus, until the ossific or earthy matter is coughed up, when the ulcer heals and the patient recovers.¹

This action is sometimes found to have existed in the glands of the mesentery;² but I am not acquainted with any instance where the external, or subcutaneous glands were similarly affected.

We are not, I believe, sufficiently acquainted with the minutiae of this disease, to offer any diagnostic symptoms, which certainly denote its existence in an early stage. The irritation in the lungs which the ossific matter produces, so closely resembles the irritation from tubercles, that it appears difficult, if not impossible, to distinguish them, until the bony matter becomes expectorated.

¹ Cruikshank. Le Dran gives a very minute history of this complaint. *Le Dran's Surgery*, p. 128.

² Baillie's *Morb. Anatomy*, p. 112, and 202, 3rd. Edit. 8vo. Dr. Monro in *Med. Transactions*, vol. 2. p. 331.

The treatment will necessarily be confined to abating the local irritation, and to the support of the patient's strength, by a nutritious, though not stimulating diet.

SECTION IV.

History of Scrofulous Absorbent Glands.

The scrofulous enlargement of an absorbent gland, is generally perceived when about the size of a large pea; and occurs most commonly between the second and the twelfth years of a child's life, but occasionally after puberty. The gland is hard and moveable, gives no pain, and may continue without increasing during the early part of the patient's life. When it does increase, its progress is slow, being one, two, or more years, before it excites inflammation of the surrounding skin. The hardness, and freedom from pain, continue during the greatest part of this time.

The disease occupies a gland in the neighbourhood of the lower jaw, and often arises without any perceptible exciting cause; at other times, it is accompanied with, and preceded by, irritation upon the head, or the membrane within the nose becomes inflamed, and the inflammation extends to the upper lip; a gelatinous fluid is effused, and produces considerable thickening. If the increased action be continued, the mucous follicles become ulcerated, and the more fluid part of their discharge being evaporated, the remainder hardens into a scab of a pale yellow colour tinged with brown. The child endeavours to obtain relief from the irritation, by removing the scab, and thereby causes it to extend below the columna nasi; and when combined with the thickening above mentioned, it constitutes the tumid and chopped lip, which has been noticed by almost every author who has written on the subject.

Those children who have a fine complexion, fair hair, ruddy cheeks, a smooth skin, a large, lucid, and blue eye, with a somewhat

dilated pupil, are said to be most subject to this complaint; but every Surgeon, who has seen much Scrofula, will, I believe, admit that it occurs in all complexions, and in all temperaments; I have seen it in an African as well as in the European.

This disease not only occurs in different constitutions, but assumes different characters according to the constitution: hence great difficulty has arisen in giving its generic characters. The difficulty has been got over by ascribing the variety to the scrofulous virus, which has been said to vary its action with the constitution. An almost endless latitude thus being given, every difficulty experienced in healing an ulcer, is commonly ascribed to this insidious agent. Not to enter into this controversy prematurely; on the one hand, and not to explain away what we cannot account for, on the other, I shall divide the History of Scrofula into three *species*; because such a division appears not only to simplify the complaint, and render the observations which I have to make, more intelligible; but

enables us to discriminate with more precision, what modes of cure should be adopted.

The first stage of the process which is called Scrofula, is almost always attended with an increase in the size of the affected gland; but in the first, and most frequent species, an early effusion of fluid is also perceptible, which is exterior to the body of the gland, and is contained in, and circumscribed by, the adjacent cellular membrane.

The distension which this effusion produces, becomes an additional source of irritation. The arterial action is increased, the vessels acquire the power of changing the properties of the circulating fluid, and pus is secreted. An abscess is thereby formed, which is at the same time a secreting and an absorbing surface; its boundaries are circumscribed by adhesive inflammation, and a new process takes place. In its former stages, the secreting vessels possessed greater activity than the absorbent, and increased deposition was the consequence; but as the increased secretion distends the abscess, the newly organized parts become

absorbed,¹ and the cavity consequently extended. This is called ulcerative inflammation. Mr. Hunter shewed that it is the property of all matter to approach the surface, even where there is less opposition in other directions; the absorption takes place, therefore, most actively towards the skin.

We sometimes find the abscess excites so small a degree of irritation, or the secerning vessels possess so little activity, that they do not keep pace with the absorbents; and more of the walls, or of the contents of the abscess, become absorbed, than is sufficient to take off excessive distension. As the fluid approaches the surface, the skin appears more flaccid, and the abscess may continue in this state many weeks; because the advance of the pus towards the skin, does not cause sufficient action to produce inflammation of that membrane. The abscess feels soft like a bladder not entirely filled, and what

¹ "Weak, diseased, and newly formed parts are easily absorbed when exposed to pressure or irritation."

J. Hunter.

would otherwise be the most convex part of the swelling, appears almost flat. The fluid which is discharged when the abscess bursts, like every other stage of the process, is imperfect, and consists of flakes of coagulable lymph, swimming in a half puriform fluid.

The pus is formed exteriorly to the gland, so that when the skin and cellular membrane are absorbed, the cavity of the abscess is very superficial, and the tumour continues almost as prominent as before the fluid was discharged.

Occasionally, the abscess follows immediately after the irritation in the gland, and appears to prevent any increase of its substance; the relative proportion of these symptoms varies, therefore, according to the facility which the vessels evince for secreting pus, and this diversity materially affects the subsequent ulcer.

When the contents of the abscess are discharged, the skin, by collapsing, comes in contact with the diseased cellular membrane which surrounds the gland, and which constitutes a

considerable part of the enlargement; these sometimes unite in the circumference, and resume their healthy action; and this union confines the ulceration to a smaller extent: but more frequently, the diseased parts will not adhere, and the restoration can only be effected by granulations. The surface is so little painful, that the patient suffers it to be exposed, and the discharge incrustates, and forms a scab upon the small ulcerated aperture. As pus continues to be secreted, the diseased skin becomes again distended, until either the scab is removed, or the skin ulcerates in another part. There is in this way, a successive collection and discharge of the fluid; but at length the ulcerated points are so numerous, or so extensive, that a scab cannot be formed. The skin continues during this time of a dusky brown colour, rather than red, like a part to which a hot instrument had been applied.

As the ulceration becomes extended, one portion of the sore will have become clean, whilst the action is so trifling that a slough

continues to adhere in other parts during many weeks. Not unfrequently a sinus is formed towards the most depending part of the cavity, and is caused by a want of adhesion around the aperture; one or more points of ulceration may be observed in the skin which covers the sinus, these spread by successive sloughing until they become gradually extended into each other. The death of the skin is occasioned by the death of the cellular membrane, and of the vessels which pass through it, to organize the cutis; previous to its destruction, a number of red vessels may be traced upon its surface, which cause the skin to appear inflamed. This only proves the effort which is required to retain life in the part.

We have seen that it requires some months, or even, in many cases, years, to produce ulceration; we cannot, therefore, reasonably expect the parts which have been so long under the influence of disease, will immediately be able to resume their healthy actions. This is further retarded by the incomplete process which, though it has so long

subsisted, is accompanied with the thickening and enlargement which existed prior to the formation of matter. The ulcer is nearly in the state of a gland which has undergone the action of acute inflammation, and which has been opened by the lancet before the abscess pointed. The diseased parts must ulcerate or slough, before any attempt will be made to fill up the wound by granulations, but there is this difference, the inflammation in one case had been violent, and speedily terminated by the formation of pus, and its further progress had been arrested by the Surgeon; but in the other, the ulcerative inflammation had long existed, and the constitution was less able to regulate the disease, and to restore the parts to healthy action. The compound process which constituted ulceration being kept up, by habit, continues therefore after the cause which produced it has ceased.

It has already been observed that when a sinus is formed, the skin ulcerates or sloughs, as the cellular membrane is destroyed; so

also where the ulceration is more regularly extended, the subcutaneous cellular membrane continues to ulcerate in the circumference of the ulcer, even after granulations have arisen in the centre nearly even with, or above the surface; but the skin being much more vascular, possesses greater powers of resistance to the ulcerative action, and this greater resistance produces the thin edge and overlapping, which is so striking a character in these cases. This I conceive is what Mr. Crowther means by a "phagedenic ulcer" which yet "is not phagedenic, because it wants the fiery edge, and painful surface, of that ulcer."

In active inflammation, there is not only more constitutional power than in scrofula, but less disposition in the skin to slough, because the diseased cellular membrane is so quickly thrown off, that the vessels of the cutis are able to support the increased action, until granulations rise, and unite it with the parts beneath. Besides, the lateral extent of a scrofulous abscess is much greater in proportion to the quantity of pus contained in it,

than one which follows acute inflammation; the skin is therefore further separated from the parts with which it is connected, and its chance of supporting vital action much diminished; that this is the only reason for the difference between these cases, may be proved by introducing a tent, or other extraneous body, into the ulcerated opening which succeeds active inflammation; this, by keeping up the irritation, will cause the death of the cellular membrane, and ultimately of the skin, and produce an ulcer equally difficult of cure with one which had been originally considered scrofulous.

When the diseased skin has ulcerated to a considerable extent, the tumour either gives rise to granulations, which are fungous, broad, and flabby, or, in more indolent cases dies, and the bottom of the ulcer presents a sloughing surface. In the former case, the granulations press upon the remainder of the diseased skin, and facilitate its destruction; in the latter, the edges of the sore are thickened, and the discharge watery; the ulcer neither

spreads, nor fills up, but presents the same unvaried character, the absorbents being unable to remove the living parts which are in contact with the sloughs, and by which they would be separated. This is also frequently observed in indolent ulcers of the lower extremities. When at length granulations rise, a part of them will appear florid and healthy, whilst the remainder are tawny and dwarfish, as if stunted in their growth; or a film of mucus extends from one point of granulation to another, and adheres to them.

Where the granulating surface appears glossy, and the points which shoot forth are broad and flabby, they rise above the skin, and require pressure; there is often, also, a fiery surface, and wherever this is found, great irritability exists. There is no contraction in the size of the wound, and red streaks, as of vessels, pass over the granulating surface, and bleed from very slight causes. This surface is easily destroyed.

So long as the burrowing disposition is

continued, the skin which covers it will participate in the disease, and there will be little disposition to cicatrize, for new skin cannot be formed from that which is diseased; but an island of skin will sometimes form on the centre of the sore, which gradually extends and covers a considerable part of the ulcer. When the ulcer is nearly healed, the patient feels little inconvenience, the discharge is trifling, and he neglects to keep its surface covered, lymph is exuded, and by evaporation of the more watery parts, a scab will be formed, which continues to adhere, in proportion to the time required for the completion of the skinning process underneath it. When ultimately the ulcer heals, it leaves a large, pale, shriveled, and unsightly scar.

The second species of scrofulous affection in these glands which influences the progress of the ulcer, is attended with simple enlargement of the glandular substance, or of the adjacent parts. It is formed by the effusion of coagulable lymph, within the interstices of the part, into which blood vessels shoot, and

it becomes organized, which often terminates the disposition to enlargement. But more frequently the swelling becomes the stimulus to its own increase, and the distention it occasions produces an increased effusion, "the parts surrounding the tumour may be considered as the source from which it derives its nutriment," like other tumours "it grows by its own inherent powers," and continues to enlarge, until by a gradual condensation and adhesion of the surrounding cellular membrane, it approaches the skin and adheres to it. The tumour may produce these effects without causing much redness, and ulceration takes place in consequence of the distention, rather than by the participation of the skin in inflammatory actions. The size of the ulcer varies according to these circumstances; for where the inflammatory actions are considerable, the skin participates in them, and the adhesions which connect it to the gland are often stronger, than when that body has attained a greater magnitude, before the skin is affected by it. But, though the adhesions are firmer in proportion to the

rapidity of the disease, it must also be acknowledged, that there is greater danger of the newly formed parts being destroyed, because the inflammatory action will continue after ulceration has taken place. Besides, the skin ulcerates in proportion to the actions it has to sustain; the diseased cellular membrane which surrounds the gland, becomes consequently exposed to a greater extent, and being unable to support diseased action, sloughs, and is separated; this separation exposes a second layer of cellular membrane, which sloughs also. This action continues until it extends to the substance of the gland, which has greater power of resistance, and gives rise to granulations. As the gland is, however, under the influence of disease, and is so much increased in size as to keep up the irritation in the surrounding parts, the granulations are broad, pale, and flabby, and the new skin is long in being formed.

In the most indolent, and most frequent cases, a very small discharge, after ulceration has taken place, is sufficient to prevent the

extension of the disease, and as little inflammation exists, the newly formed parts retain their vitality, and the ulcer is confined to a small space. Its surface is covered by a slough, which appears semi-transparent from a suffusion of a trifling watery discharge. The slough is very long in separating, and when it is partly accomplished, a single point of granulation shoots forth; but as the remainder of the slough continues attached, no cicatrization can take place.

In the third species of scrofulous enlargement, I mean to include those cases where the abscess is formed in the substance of the gland, and where a portion of its parietes must be absorbed before ulceration can take place. If the cells of the gland are separated by adhesion, each cell may contain an abscess, and successive openings are formed for their discharge. This species seldom occurs.

SECTION V.

Theory of Scrofulous Absorbent Glands.

ALMOST every writer with whose works I am acquainted, ascribes this disease to the stimulating qualities of the fluids which pass through the absorbent glands. It may perhaps be sufficient to enumerate the opinions of a few only.

“I shall endeavour to fix upon a peculiar acidity in the serum of the blood, and describe the king’s-evil to be a tumour arising from a peculiar acidity in the serum of the blood, which whensoever it lights upon a glandule, coagulates and hardens. If this acid humour be simple, the disease is a simple struma; if joined with a malignity, or any other humour, it makes a mixed tumour as a malignant struma.”¹

¹ Wiseman.

“The scrofula is a tumour in the glands of the neck, as also in all the other glandular parts of the body, and consists of a very malignant nature.”²

“Scrofulous cases are very difficult to cure, and very few remedies affect their cause. They frequently occur in some climates and nations, and are not seldom the inheritance of our ancestors’ irregularities; their source is in the blood, their seat in the glands and joints. The acid which causes these cold coagulations is exceedingly difficult to be destroyed.”³

“It has been long confessed that mercury alone is capable of working a thorough cure in these disorders, whether by liquefying, dissolving, and putting in motion the liquors, or by destroying the acids and viscous ferments which occasion the lymph to coagulate &c.”⁴

“Strumous, and scrofulous disorders arise from a schirrous humour of the conglobate or

² Le Clerc.

³ Bellostes’ Hosp. Surgeon, vol. ii. p. 19, & 20.

⁴ Ibid.

lymphatic glands, or at least from a tumour that approaches very near to the nature of scirrhus, from whence it is plain that they are occasioned by a thick lymph stagnating in the glands.”⁵

“The king’s-evil proceeds from a thick phlegm, which is sometimes acrimonious and salt, in those which are painful.”⁶

After a definition of this disease, and after the relation of several cases, Turner observes, “that the glands are the common seat of this malady is beyond controversy; but the manner of its production, out of what juices, and by what vessels conveyed, is not so easy to determine.”

“What shall we say when we find the very marrow of the bones infected, nay, the solidity of these parts themselves, not fence sufficient against the acrimony of these humours?”

“Witness still the worst of all, the carious ulcers and terrible exostoses; witness the formidable spina ventosa, where the corroding

⁵ Astruc on the Venereal, vol. ii. p. 114.

⁶ Dionis’ Surgery.

solvent beginning inward, preys upon the bone like an aqua stygia, sive fortis duplex, penetrating the inward lamellæ, eating through the outward cortex, and this even in the largest bones of the body; so that in this particular, for its corrosive nature, it may be said to come up with, and even to surpass the pox itself, although the acrimonious salts by which they act, are of a diverse nature.” ⁷

“These swellings (scrofulous) are the effect of a peculiar constitutional taint as yet unknown, and of which no certain opinion can be given.” ⁸

“The scrofulous virus, when thrown on the surface, so far resembles the cancerous, according to the description of the late ingenious Mr. Hunter, that it is inclined to spread to a considerable extent.” ⁹

Dr. Kirkland also represents this disease as *sui generis*. “Its primary cause being one of

⁷ Turner's Surg. vol. i. p. 120, 124, and 125.

⁸ Nisbet's Clinical Guide, vol. ii. p. 149.

⁹ Underwood's Diseases of Children, vol. i. p. 349.
See also Underwood on Ulcers.

those secrets in nature that has not yet been unveiled.”¹⁰

“The different termination of glandular swellings of a cancerous, scrofulous, venereal nature &c. authorize the presumption of specific ferments, or virus, which dispose the accumulated matter to contract such, or such a kind of alteration.”¹¹

Even Mr. Hunter appears to subscribe to this opinion. “There are some parts much more susceptible of specific diseases, than others. Poisons take their different seats in the body, as if they were allotted to them. Thus the skin is attacked by what are vulgarly called scorbutic eruptions, as well as many other diseases; it is also the seat of small-pox and measles: the throat is the seat of action of the hydrophobia, and hooping cough. The absorbent system, especially the glands, are more susceptible of scrofula than most other parts.”¹²

¹⁰ Medical Surgery, vol. ii. p. 451.

¹¹ Richerand's Physiology, p. 111, & 112.

¹² On the Blood, p. 5, and 6.

And Dr. Hunter believed "from the universal swelling immediately under the skin in scrofulous patients, that the lymphatics took up some noxious particles from the atmosphere."¹³

But Dr. Cullen more particularly has endeavoured to establish this theory into a system, and has almost universally succeeded. "It seems to be a peculiar affection of the lymphatic system, and this in some measure accounts for its connection with a particular period in life. Probably, however, there is a peculiar acrimony of the fluids, that is the proximate cause of the disease."¹⁴

He classes it therefore with syphilis, scurvy and jaundice, in the order "IMPETIGINES," or with those diseases "which depend, for the most part, upon a depraved state of the whole of the fluids, producing tumours, eruptions, or other preternatural affections of the skin."¹⁵

These opinions appear to have been founded

¹³ Cruikshank's Anatomy, p. 112.

¹⁴ First Lines of the Practice of Physic, vol. 4, p. 372.

¹⁵ Ibid. vol. iv. p. 357,—8.

First, on the disease being situated in the absorbent system.

Secondly, on the constitution of the patient.

And lastly, on the progress of the local actions, and on the difficulty of cure.

There appears to me nothing more likely to lead to erroneous doctrines, than the classification of diseases from one leading symptom. It is well known, that the absorbent glands become irritated and inflamed, by the passage of morbid fluids through them, and that the inflammation, and the consequent ulceration, are regulated by the peculiar action of the stimulating fluid. Matter absorbed from a venereal chancre, from the small or cow-pox, from a wound inflicted by the bite of a venomous serpent, of a mad dog &c. will cause inflammation of an absorbent gland, and a peculiar action either in the subsequent ulcer, or in the constitution, or in both.

As every absorbed fluid has to pass through the glands, as they are stimulated, inflamed, and enlarged, by the passage of noxious matter, and as enlargement takes place in Scrofula,

it was thought evident that this disease originated also in a peculiar acrimony, or irritating quality of the fluids: how inconclusive this reasoning is, I shall hereafter endeavour to prove; at present it may not be improper to shew that according to Dr. Cullen, the disease is in some degree at least governed by external agents. "The Scrofula," says that author, "generally shews itself first at a particular season of the year; and at some time between the winter and the summer solstice; but commonly long before the latter period. It is to be observed, further, that the course of the disease is usually connected with the course of the seasons. Whilst the tumours and ulcerations, peculiar to this disease, appear first in spring, the ulcers are frequently healed up in the course of the succeeding summer, and do not break out again till the ensuing spring, to follow again with the season the same course as before."¹⁶

This influence of the atmosphere over the

¹⁶ First Lines of the Prac. of Physic, vol. iv. p. 364.

actions which constitute what is called scrofula, appears from even this author's account, much too general and extensive, to have enabled him to attribute every phenomenon of this unpleasant complaint, to "acrimony of the fluids;" and this view of the subject, appears to swell into greater importance when we consider, that the disease occupies those parts, which in children are most exposed to the action of the atmosphere, that it is most frequent in those countries where the climate is most variable, and at the most variable seasons; and that we can only attribute its very frequent occurrence in this kingdom to the climate, which has become proverbial.

The connexion of the application of cold, with this disease, appears illustrated by the following

CASE.

Mary Taylor, a young woman about seventeen years of age, servant to a farmer, after washing a considerable part of the night, and till dinner time, was ordered by her master

to pull turnips for the oxen; in which she was employed the remainder of a winter's day, and was exposed to a considerable fall of snow; her catameniaë which were upon her, immediately ceased; she was taken ill in the evening, was feverish, and being unable to work, was conveyed to her home. Soon afterwards, and almost simultaneously, she had pain in the joints of the right ancle, and wrist; the metacarpal joint of the left forefinger, and the left elbow, were also affected. The pain continued without intermission, the parts were considerably swollen, and burst in succession. The discharge was limpid, and mixed with flakes of curd. About six months afterwards I chanced to be in the country, and was desired to see her. She was then emaciated and hectic, the joint of the finger was destroyed, and the bones of the ancle and wrist were carious. She soon afterwards died.

The following case, which I have transcribed from Mr. White's Essay on Scrofula, is equally important. "A very healthy young woman, about twenty-four years of age, without

any other appearance of predisposition to this disease, than that of a fine skin, was coming from Yorkshire to London during winter. From an accidental circumstance, she was obliged to take a very long stage on the outside of the coach, at an early hour in the morning, which occasioned enlargement of the glands in the neck, and on the arm that was more particularly exposed to the cold; several suppurated, and were, for a very long time before I saw her, very troublesome.”¹⁷

I have already quoted Dr. Cullen’s opinion, that a depraved state of the whole of the fluids produces these tumours &c. yet in a subsequent part of his first lines he says, “in the cases of more violent Scrofula, where every year produces a number of new tumours and ulcers, their acrimony seems at length to taint the whole fluids of the body.”¹⁸ I need not point out the contradictory nature of these quotations. The cause which in one instance produces the disease, is in the other only

¹⁷ Essay on Scrofula, &c. p. 61.

¹⁸ First Lines of Prac. Phys. vol. iv. p. 370, 371.

an effect of it. Again he says "its appearance in particular constitutions, and at a particular period of life, and even its being an hereditary disease, which so immediately depends upon the transmission of a peculiar constitution, are all of them circumstances which lead me to conclude upon the whole, that this disease depends upon a peculiar constitution of the lymphatic system ;"¹⁹ yet, in a preceding page, Dr. Cullen has observed that "it affects the joints," and that "the ligaments and cartilages are eroded by it."²⁰

In short, we observe through the whole of his treatise on this subject, a vacillation and fluctuation of opinion, seldom found in other parts of his justly celebrated work. He believes that "the nature of the complaint is not easily to be ascertained," and appears uniform only, in describing the influence which the seasons have over it.

By loading his theory with this multiplicity of opinion, Dr. Cullen has not, as may be

¹⁹ First Lines of Prac. Phys. p. 373.

²⁰ Ibid. p. 370.

perhaps imagined, demonstrated its deviation from natural actions, he has only shewn that his conclusions taken singly, are unable to account for the phenomena in a satisfactory manner, even to himself.

It is impossible to reconcile this author's general opinions with those which he has endeavoured to establish on this particular subject. "From the earliest accounts of physic with which we are acquainted, it appears, that from the most ancient times down to the present, Physicians have been attached almost entirely to the study and consideration of the fluids, and from the supposed state of these, have endeavoured to explain the phenomena both of health and of sickness. In this, however, they appear to me to have been unfortunate, for not to mention the imperfection and falsehood of the many speculations both of galenists and chemists, which have formerly prevailed on this subject, I would venture to assert that the doctrine concerning the fluids, is still the most imperfect of our physiology."²¹

²¹ *Materia Medica*, vol. i. Part 65, 4to. Edit.

“Nothing has been more common among Physicians, than to suppose that an acrimony of the fluids is a frequent cause of disease. It is very possible that it may be so, but it appears to me that the supposition has been too rashly and too frequently admitted, and that it has been for the most part purely gratuitous, without any proper evidence of it in fact.”²²

“Upon the whole of this subject, therefore, I would conclude, that the supposition of an acrimony as the cause of diseases, has been too frequently admitted in our modern pathology; and that it ought not to be admitted, unless when the cause and existence of it are well ascertained.”²³

It is much to be regretted, both for his own reputation, and for the benefit of the profession of which this author was so distinguished an ornament, that he did not more strictly adhere to the opinions which I have quoted, and which reflect so much credit upon his judgment.

²² *Materia Medica*, vol. i. Part 77.

²³ *Ibid.* p. 78.

I cannot more strikingly exemplify the probable fallacious tendency of his opinions on this disease, than by transcribing the following passage from his works. The reader will, I hope, pardon, the repeated quotation. When pointing out the imperfections of the Boerhaavian system, he observes, “although it cannot
 “be denied that the fluids of the human body
 “suffer various morbid changes, and that upon
 “these, diseases may primarily depend, yet I
 “must beg leave to maintain, that the nature of
 “these changes is seldom understood, and more
 “seldom still is it known when they have taken
 “place; that our reasonings concerning them
 “have been, for the most part, purely hyphothe-
 “tical, have therefore contributed nothing to
 “improve, and have often misled the practice
 “of physic. In this, particularly, they have
 “been hurtful, that they have withdrawn our
 “attention from, and prevented our study of,
 “the motions of the animal system, upon the
 “state of which, the phenomena of diseases
 “do more certainly and generally depend.”²⁴

²⁴ Preface to First Lines of Prac. Phys. p. 32, & 33.

The justice of the application of these remarks to the present subject, will not be doubted by those who observe in Dr. Cullen's description of the disease, many marks of an intelligent Physician, whilst as he approaches the doctrines of the humoral pathology, he wanders into error and confusion. Had not Dr. Cullen essentially contributed to our medical knowledge, I should not have troubled the reader with this imperfect refutation of what appear to me erroneous conclusions.

Almost every phenomenon of the disease appears to me conclusive against this doctrine. I beg leave to notice those which are most striking.

If the acrimony which is said to be both the cause and the consequence of Scrofula, be circulated in the fluids, and deprive the system of its healthy action, why does not every wound assume this character ; why does a healthy action follow the amputation of a scrofulous joint? The following case will illustrate this subject.

A young man who is afflicted with glandular enlargement and ulceration beneath

the lower jaw, and whose sight is injured by frequent attacks of chronic inflammation in the eyes, had the skin torn off the external surface of the arm, from the insertion of the deltoid muscle to the elbow, where there was an orifice into which the finger might be introduced. The cellular membrane was here torn from the extensor muscle, and the wound led downwards to the external condyle of the humerus, which was abraded.

There had been very little hæmorrhage, and the parts were brought into contact by adhesive plaster. The dressings were removed on the third day. The upper portion of the wound looked healthy, and the discharge was puriform, whilst the lower presented a sloughing surface. The eschars separated in a few days, during which, granulations shot forth in the superficial portion of the wound, and it healed rapidly. The man had little pain or inconvenience; and granulations now rose in the most injured part, but more slowly. The wound was healthy, and contracted in size; but at this time he

removed the dressings, kept the sore exposed, and the granulating surface, after inflaming, sloughed away. It required some time for its re-production, for the irritability continued. The granulations were more florid and broader than before, and I now became acquainted with the cause, by observing a glazed film over the surface, as if disposed to scab. It was evident that the plaster had been removed, and this being henceforth avoided, the wound healed, whilst a small ulcer under the ear, which was accompanied with an enlarged gland, and had existed many months, continued in the same state. Why the healthy action took place in one instance, and not in the other, will be hereafter inquired into. It is very evident that acrimony of the fluids cannot account for it.

It has been urged by the favourers of Dr. Cullen's theory, that as these enlarged glands appear in successive generations, the disease must be hereditary; and as it possesses the same characters in both instances, it has been considered as a proof of a peculiar

and specific excitement. This is, however, by no means the case. There are numberless diseases which appear in certain families and constitutions, which are not even suspected to depend on acrimonious fluids. Indeed all that is admitted by this definition, is a constitutional predisposition to fall into diseased actions. If the exciting cause be not applied, the disposition remains dormant; on the other hand, a similar action may be excited, though there have been originally no reason to expect it.

This was Mr. Hunter's view of hereditary disease, and it has been more or less generally admitted since his time; but Mr. Hunter went farther, he asserted, rather prematurely, that no disease was hereditary. Subsequent facts have fully shewn that specific diseases are occasionally transmitted from the parent

²⁵ "Rien n'est" says Pouteau "donc plus erroné généralement que l'axiome tant répété que le germe des maladies passe des peres aux enfans, *abeunt in natos patrum cum semine morbi.*" The same author adds "Bornons-nous donc simplement à avertir que les enfans ont plus que tous les autres, de fâcheuses dispositions aux maladies dont leurs parens ont été entichés."

to the offspring; for children are affected with syphilis, or with small-pox, previous to parturition. If then Scrofula, like these disorders, originated in a diseased action excited by the fluids, and if, when once excited, it possessed the power of extending its action to any other part of the same, or of another system; we should expect children to be born with scrofulous complaints; and I know not who would venture to inspect a body with the mesenteric glands enlarged, or with ulcerated lungs. "Predisposition has no reference to morbid poisons, but implies an original, usually an hereditary formation in the constitution, which renders it liable to fall into certain diseases peculiar to certain climates, or excited by certain causes, as scrofula, or madness."²⁶

That Dr. Cullen's theory is incorrect, and that Scrofula is not, as Mr. Hunter insinuates, a specific disease²⁷ which precludes other

²⁶ Adam on Morbid Poisons, 2nd. Edit. p. 8.

²⁷ By a specific disease I conceive is meant one whose actions are excited and regulated, not by natural operations of the living powers, but by a peculiar and specific agent, which continues to exert its influence, and renders the system unable to restore the affected part to an healthy action.

constitutional actions, is proved by the super-vention and regular progress of small-pox, measles, and cow-pox, though the system be labouring at the same time under scrofulous diseases;²⁸ but it is further proved not to be a peculiar disease which originates in the “vitiated fluids” of man, since many domestic animals are afflicted with it.

Sometimes during this process a contiguous gland enlarges, and pursues the same course. It has been argued, that this is a proof of a peculiar irritating matter, and the argument would have some force, if any regular law were observed. But it cannot be an object of surprise that the indolently increased action which I have endeavoured to point out, as the proximate cause of Scrofula, be communicated from one gland to another, or that they should be regulated by the same constitutional and local action, which influenced the primary enlargement. We find, however, that fresh tumours

²⁸ See the Report of the College of Physicians and Surgeons of the Vaccine Institution in Dublin, in the Appendix to Willan’s Treatise on Vaccine Inoculation.

form, or the ulcers spread, whilst a contiguous ulcer heals. It appears, therefore, to prove the very reverse of this position; for if the original disease be produced by the stimulating qualities of the circulating fluids, and if this stimulus ceases to irritate and allows the natural powers to restore the injury, how much more should these powers be able to overcome the action in parts which have only recently become influenced by the disease, and where it is not so tenaciously kept up by habit.

Another distinction which has been shewn to exist between irritation in the absorbent glands, which is excited by common causes, and that which is the effect of a specific agent, is the direction in which the enlargement takes place. That which is the effect of the latter, is invariably in the course of absorption, whilst the former takes also a contrary direction. The successive enlargement of scrofulous glands is frequently, but by no means always, in the course of absorption; for an enlargement near the elbow is followed by others in the fore-arm, and the disease is

also propagated down the chord to the testis. ²⁹

There is no fact which is founded on a more extensive observation, and which therefore ought to be more generally admitted as an axiom in pathology, than that those parts are soonest removed by absorption, which possess least vitality, and which would easily slough away when inflamed. It appears ordained that they should be absorbed to prevent their death. If then Scrofula were a specific disease, we should expect the ulcers to observe peculiar laws, whereas those who trace a scrofulous ulcer most accurately, will find that it affords the most favourable opportunity for verifying the axiom which I have mentioned.

The difficulty of cure has been said to originate in the peculiar acrimony which produced the disease. But as this assertion alone, is not a sufficient proof of that cause existing, it will scarcely be necessary to enter upon it in this part of the essay. I shall just observe,

²⁹ Pearson's Observations on Cancerous Complaints.

that scrofulous ulcers heal without a specific remedy, and that this appears to militate against such a conclusion.

Neither can the peculiar appearance of the discharge be at all illustrative of such a cause. The discharge in syphilis and small-pox does not, as far as analysis goes, shew the existence of any peculiar substance: But this fact is illustrative of a much more important conclusion, that the actions which a discharge excites, will alone enable us to form accurate conclusions of its nature; and they teach us to watch the phenomena of disease, rather than trust to the wanderings of hypothesis and conjecture.

Those Surgeons who are of opinion that the disease arises from acrimony in the fluids, will allow that the diseased action becomes subverted when granulations rise; and that it becomes extinct when the ulcer has healed: at least, the healing of the ulcer is a complete proof that the constitution is able to destroy the effects of this acrimony, and it has been long acknowledged that when a disease

becomes subverted, whether by the power of the system, or by the action of medicine, the cause which produced it becomes perfectly inoffensive. A Caviller might argue that the granulations are not healthy, and that they retain the characters which have marked every stage of the process. But the argument loses its power, when it is considered that if these granulations were formed by diseased actions, the fluid which they secrete ought to retain its qualities, and extend the disease.

It may indeed be taken as a general law, which appears strengthened by every fact with which I am acquainted, that no disease is regulated by alteration in the fluids; because on the one hand, the fluids cannot be what is called vitiated, but in consequence of imperfect or diseased actions: neither can they reproduce disease, but by exciting an action in the part to which they are applied, by which action, the progress and appearance of the disease will be regulated.

Observation and theory alike tend to convince me, that the general opinion on the

origin of this disease, and the laws by which it is regulated, are incorrect. To satisfy myself yet farther, and to bring my opinions to the test of experiment, I determined to introduce the pus, which was discharged from a scrofulous ulcer, into the system of another person; and feeling, that however confident of this fact, I could have no right to subject any other person to the risk, if any risk existed, I determined to try the experiment upon myself.

December 2nd. ——— I visited the son of C * * * * * who has been several years affected with scrofulous diseases. I never saw a more extensive chain of enlarged glands. They occupy the left side of the neck, and extend from the mastoid process to the axilla, where there is one very much enlarged and ulcerated. The submaxillary absorbent glands, the cervical and clavicular glands, on the opposite side, are equally diseased. The bronchial glands also are probably affected, since the boy has much cough and expectoration, with night sweats and diarrhæa; he is

much emaciated, and his breathing is difficult.

Thinking this a favourable opportunity, I dipped a lancet in the discharge which thinly covered the sore, and immediately punctured the back of my left hand, between the extensors of the thumb and fore-finger. I withdrew the lancet, and having again covered the point with matter from the ulcer, I made another puncture on the anterior surface of the fore-arm, about two inches from the wrist, and between the pronator and supinator muscles.

I had occasion to wash my hands soon afterwards, and found the friction of the towel produce a little heat and redness in the puncture on the hand, which continued about half an hour. The hand was afterwards exposed to cold in riding.

The puncture on the hand occasionally felt warm during the day, but the arm was easy. A little redness was visible around each puncture, and the redness and heat gradually increased towards evening; transient springing pains also excited occasional attention.

3rd. I perceived an itching sensation in each puncture, whilst in bed this morning, attended with a trifling heat. The redness continued during the day, and was a bright scarlet towards evening. No inconvenience nor soreness on being rubbed.

4th. The redness around the punctures is much abated. No inconvenience.

5th. Still less redness.

6th. Punctures healed, though the marks were visible some days afterwards.

I repeated this experiment several times, with a similar result.

The only remaining point for consideration, is the peculiar constitution, which attends any marked case of this disease, and has been noticed by all authors for the flaccidity of the muscular fibre ; but that there is nothing specific in the cause which produces it, appears evident, since it follows debility produced by other diseases. How often are scrofulous affections, the consequence of small pox, and of the debility which is induced by a course of mercury ? How frequently are scrofulous abscesses produced after typhus fever ?

CASE.

A healthy looking young man, twenty-one years of age, after a few days intemperance and consequent exposure to cold, was seized with inflammation of the right leg. I saw him ten days after its commencement, the whole limb was of a dark red colour. It was considerably swollen, and very painful, several large blisters had risen, and were filled with a dark coloured serum. His pulse was quick and tremulous, his head and back painful, he had much thirst, no appetite, tongue dry and clean, skin hot. His friends had given him a quantity of medicine, by which his bowels were exceedingly purged, his stools were dark coloured and offensive, and his urine scanty. After a dose of calomel and opium, I ordered him a mixture of bark combined with laudanum, and he was directed to take wine and porter in moderate quantities. The limb was wrapped in a poultice of bread and water, which was ordered to be kept moist. By these means the pulse rose, the appetite returned, and the purging ceased. The

inflammation also became less considerable, but had extended to the cellular membrane; matter was formed, and three abscesses burst, and discharged profusely.

During this time, he complained of pain in the right elbow, though little swelling or inflammation had appeared; the left leg and arm also became painful, but there was no discoloration. At the end of the third week, a small collection of matter was visible, near the tendons which form the inner hamstring; it was soft, and he could bear pressure upon it without uneasiness. A similar abscess which had formed upon the right elbow, now burst, and three or four others were soon after perceptible upon the left arm, on the inner side of the biceps muscle, in the course of the principal vessels; these abscesses possessed the characters which have been described as characteristic of Scrofula.

Mr. Hunter thought that Scrofula succeeds the small-pox, in consequence of one specific disease running into the other; but if this opinion were correct, it would not follow diseases

which are so very dissimilar; and whoever will refer to Mr. Hunter's work, will see that he has mentioned this hypothesis to support a previous theory, and that he has not even attempted to explain how it takes place.

It might also be argued, that these diseases brought into notice the properties of matter, which had long been dormant in the constitution. It would be inconsistent to assert that such a thing was impossible, but no proof has been, I believe, adduced to support it, and every phenomenon may, I apprehend, be explained without such an admission.

A few authors, who were perhaps aware of the difficulties which I have noticed, in this view of the disease, have endeavoured to account for the symptoms, by obstruction in the glands; occasioned either by the weakness of the convoluted vessels, of which those bodies are said to be composed, or by viscosity of the lymph which passes through them. Amongst those who have advanced these opinions, may be particularized the respectable names of Darwin,³¹ White,³²

³¹ Darwin's Zoonomia, I. 2. 3. 21.

³² White on the Struma. p. 61.

Richerand,³³ and Sheldon.³⁴ Without entering into a minute inquiry into the merit of these opinions, I beg leave to observe, that as the glands are not composed of convoluted absorbent vessels, the former part of this theory must fall to the ground, and if the obstruction originated in a viscidty of the lymph, the disease should occur most frequently in parts, where the largest quantity is passing through them. But as we do not find when obstruction does exist, that the glands become scrofulous; there must be a something superadded to this theory, before it can be accepted.

I have at this time a scrofulous patient, with the glands enlarged from each mastoid process, to the corresponding clavicle, and to the axilla; and from one ramus of the lower jaw to the other. The chain is so continued, that in no part could an intervening pace be found, which would admit of the finger; if obstructions were the cause of

³³ Richerand's Physiology.

³⁴ Sheldon's History of the Absorbent System, p. 50, & 51.

these symptoms, is it not natural to expect some mark of œdema? yet there is not the most trifling appearance of it. My opinions on this subject have been proved to be correct, by the learned Professor Soemmerring, who has injected scrofulous glands with quick-silver, and found that the metal passed, with at least equal facility through them, as through others which were not diseased.

If then, neither the origin of the disease, nor the characters which attend it, justify the opinion which has been most frequently entertained of its nature; it may not be useless to inquire, what is the nature of the local actions, which are set up in the part.

The effect of the application of Cold to an animal body, will be proportioned to its degree and duration; if the privation of caloric in the surrounding medium be considerable, or long continued, it disorganizes the animal texture; if it be less violent, re-action ensues, and inflammation is produced.

The extensive connexion which even the favourers of the generally adopted doctrines,

have acknowledged to exist, between the application of cold, and the production of Scrofula; renders it necessary to inquire, if an increased or decreased arterial action, will account for its phenomena.

It might perhaps be a proper subject for investigation, how far an abscess attended with an increased organization, can in any part be produced, by diminished action of the arteries. I shall defer this inquiry until I examine Professor Russell's opinions, and at present extend it only to the relation of symptoms, which would accompany an increase of that power.

It has been observed that these bodies, when irritated, become inflamed, which is attended with a thickening of the cellular membrane in which they are imbedded, with redness and tenderness of the skin, and is followed by a formation of matter. But acute inflammation of the absorbent glands, frequently loses its primary characters, becomes indolent, and assumes every appearance of Scrofula; this is more especially the case, when

measures have been adopted to prevent suppuration, and when those measures have not been persevered in, until the enlargement was entirely removed. This proves that the absorbent system is governed by those laws, which regulate the rest of the animal economy, and that chronic inflammation frequently supervenes upon that which is more acute. If this be allowed, it will follow that slight irritation will produce a more indolent inflammation; and it is almost unnecessary to observe, because the law is universal, that the rapidity of the different stages, depends on the degree of local action, and on the constitutional power.

We may admit then, that the offspring of a weakly parent, will be less able to resist any exciting cause of inflammation; and that the inflammatory action cannot be strong, since there is no power to support it: whilst children, with strong constitutions, are more likely to resist the action of the exciting cause, and the inflammation will possess the characters of phlegmon.

That the progress of Scrofula is graduated, like inflammation, by the local action and the constitutional powers, will, I think, scarcely be denied, by any observing practitioner. The power of reparation also, is in either case dependant on the structure of the part, on the constitutional powers, and on the duration of the diseased action. Now, although Mr. Hunter has spoken of Scrofula as a specific disease, and has denied the existence of inflammation in that complaint, he has almost acknowledged the fallacy of the former opinion, by stating that a "difference of structure, situation, and position of parts in the body, make but little difference in the progress of specific diseases;"³⁵ and when, in another part of his work, he is describing the characters of inflammation, in weak habits and diseased parts, he appears at the same time, to trace the progress of Scrofula, and to account for its symptoms. "In weak habits and diseased parts, inflammation is slow in any of its salutary effects, and is hardly capable of

³⁵ On the Blood, p. 223.

either producing the adhesive, or suppurative inflammation; if they should take place, it is but imperfectly, and the surrounding inflamed surfaces are hardly capable of resolution, but continue inflamed”³⁶

I fear even Mr. Hunter’s accuracy would not enable him to point out such precise limits, between scrofulous affections, and inflammation of these glands, as would certainly distinguish them from each other; neither, if the distinction could be pointed out, would it be attended with the least practical utility. There appears an evident deviation from his generally just conclusions, in this opinion; for he has observed on another occasion, that glands in the internal parts, are never affected by the passage of irritating fluids. How then can we reconcile this law, with a totally different appearance in the characters of Scrofula? we must either account for the deviation, or give up the definition of the complaint.

The relation between simple chronic inflammation and Scrofula, appears further

³⁶ On the Blood, p. 231, & 232.

demonstrated, by the exciting causes of the latter disease being such as would excite inflammatory actions; and by the glandular enlargement being formed by an effusion of lymph. It does not appear that any other action than inflammation, can produce an effusion of coagulable lymph, and if this action were not regulated by the common powers of the constitution, or of the vessels in the part, the diseased structure should be modified by it, as in Carcinoma.

It is more necessary to establish these facts, because the contrary opinion leads to a most inefficient practice, for I hear Surgeons who deservedly rank high in the public confidence, speak of the disease "wearing itself out," and who, regulating their practice by this opinion, allow it to pursue its progress uncontrolled.

Mr. Abernethy's acute observation led him to distinguish between a disease of the absorbent glands, which is excited by stimulating fluids, and that which arises from simple irritation. In the latter case he has

found the vessels participating with the action of the diseased gland. Though I have occasionally seen this symptom in scrofulous affections of the joints, I am not satisfied that it is to be discovered when the glands only are affected; for the enlarged glands are generally so near each other, that the finger cannot trace the intermediate vessel. Its absence, however, will not be thought sufficient to controvert the opinions which I have advanced, when it is considered how little any part participates in this enlargement.

This author has observed, with his usual accuracy, in the acute inflammation of these bodies, which is the consequence of simple irritation, that the tumefaction is amongst the first and most striking symptoms; and that there is less disposition to suppuration, than when it is produced by irritating fluids. This fact is of more consequence, since it points out a general law, which a less active inflammation would be expected to follow, and which is strictly observed in Scrofula.

Those authors who have endeavoured to

distinguish inflammation from Serofula, and who have denied the existenece of the former action in the latter disease, have been, I believe, invariably led into confusion. Mr. Hunter's genius could not free him from this error,³⁶ and the observation is strictly applicable to a much later writer, who has given a description of Serofula which appears almost contradictory, and which, as he denies the presenece of inflammation, is not easily reconcilable.³⁷ He says a serofulous enlargement is both "soft" and "firm," is produced "with rapidity," or is "tedious in its formation;" and that it "disappears suddenly" and remains "long indolent." But this apparent contradiction will be very explicable, if we admit that inflammation will produce a "soft" or "firm" swelling as the vessels pour out fluids which are not absorbed, or lymph which becomes organized. In the former case, the re-absorption of the fluid will cause it to "disappear suddenly" and the organization of

³⁶ See his Treatise on the Blood, &c. p. 390, to 393, where he has denied the existence of this action, because the process is imperfect.

³⁷ Russell on Scrofula.

the latter, "to remain long indolent." Again when the abscess bursts, and "lymph" only is let out, what does it prove, but an imperfect suppuration? If "pus" be discharged, the inflammation will have been more vigorous, or the vessels have more readily participated in its formation. When Mr. Russell adds, that "one of the sedative powers of Scrofula has been thought to arise from the weak action of the heart," he probably meant only to imply, that the disease is frequently attended with debility; but he continues, its "nature and tendency is so far more certainly known, that in all respects it produces sedative effects." This however is not peculiar to Scrofula. Every diseased action must "produce, or, tend to produce" a weakness in the function of the part which it occupies, hence there are few disorders which strengthen the system; and when we observe the depression and debility, which accompany active inflammation of the absorbent glands, we shall cease to wonder, that a more indolent enlargement, will produce a like effect. What it loses in degree, it gains

in duration ; it is less active but more lasting.

This gentleman's opinions are not less deserving attention from their singularity, than from the high professional rank which the author enjoys. I shall therefore beg leave to quote them.

Scrofula "is the effect of some attack to kill the parts which they invade, this seems to be the case in those affections of the cellular membrane which were described in a former chapter. Portions of the bones too, are apt to lose their life, and to be cast off by the action of the adjacent living parts."

"It would further appear, that certain affections of the lymphatic glands, partake much of the character of death ; at least they remain swelled and indurated, without any tendency to subside, and seem to have lost all organic action."²⁸

I have previously remarked, that the learned Professor has endeavoured to prove, that these appearances are not produced by inflammation ; but if it be admitted, that the exhalent and absorbent vessels act in equilibrium in health,

²⁸ Russell on Scrofula, p. 35.

there must be either an increased action of the one set of vessels, or a decreased action of the other, when a part becomes preternaturally enlarged.

That this enlargement is the effect of simple increased organization, and that this could not exist without increased action in the arterial system, is, I think, apparent; for when affected by this disease “the glands exhibit different appearances according to its progress. They are enlarged in their size, and are often somewhat softer to the touch than in a natural state. When cut into, they sometimes shew very much the natural structure, but more frequently they are changed in part, into a white soft curdy matter, and this is not uncommonly mixed with pus.”³⁹

Professor Russell proceeds, the glands “have not indeed acquired so much of the character of extraneous bodies, as to prove a sufficient source of irritation, to stimulate the adjacent parts to act, in order to remove them. But this circumstance alone is not inconsistent with

³⁹ Baillie's *Morb. Anat.* 3rd. Edit. p. 201.

the kind of lifeless state described; for in certain species of gangrene, large portions of the body are deprived of all circulation, become shriveled, hard, black, insensible, and are in every respect dead, excepting that they do not putrefy and separate from the contiguous living parts.”⁴⁰ What species of gangrene is here meant it is difficult to distinguish, but the illustration appears very unfortunate, since scrofulous glands are neither “shriveled,” “black,” nor “insensible,” they are on the contrary, “swelled and indurated.” The latter expression is not strictly correct, because they are rather softer than in their natural state; but they remain vascular, for their vessels are capable of being filled by injection. It is surely a new mode of illustrating the diseases of living parts, to assert that the disease itself “possesses the character of death.”

But to give the Professor’s theory even the semblance of truth, he should have carried his analogy further, and should have accounted

⁴⁰ Russell on Scrofula, p. 35, 36.

for their decrease; for as the enlargement of these bodies is the effect of death, their reduction by resolution, and the resumption of their functions, must be characterized as a return to life. I mention this dilemma into which the pursuit of the Professor's opinions would have led him; because it not only strikingly exemplifies the fallacy of his doctrine; but shews that previously conceived opinions of "serofulous taint" and serofulous virus, lead even the first authorities into confusion.

But granting that "portions of bones are apt to lose their life," and that "the cellular membrane does slough away;" Mr. Russell will, I am sure, admit that they possess so small a share of vitality and vascular power, that a trifling increased action will destroy both.⁴¹ These phenomena, therefore, may be explained with reference only to inflammation.

There is another fact connected with Scrofula, which requires to be noticed;

⁴¹ Hunter on the Venereal Disease, and on the Blood.

because though it has been assigned to other agents, it appears very materially to strengthen the view which I have taken of the complaint. I allude to the disease being more frequent in some of the counties of this kingdom, than in others.

It is a fact very capable of demonstration, that a greater proportion of scrofulous patients seek relief from the Manchester Infirmary, than from almost any other hospital in the kingdom.⁴² Out of seven or eight thousand patients who are annually admitted, and receive relief from that institution, almost one half of the surgical cases are scrofulous; whilst in the Nottingham Infirmary there was only one scrofulous patient in sixty-three, on an average of two years.⁴³ A difference which is equally striking occurs in Liverpool. In a report of upwards of fifteen thousand patients, who were admitted in 1801, into the dispensary of that town,

⁴² The Inhabitants (of Manchester) are peculiarly subject to Scrofulous Swellings. Percival's Med. Ess. vol. i. p. 183.

The same fact has been observed in Norfolk. Hamilton on Scrofula.

⁴³ Dr. Clarke's Medical Report.

only one hundred and forty-two are marked as scrofulous, by the learned and accurate reporter Dr. Bostock.⁴¹ I have no precise data by which I can judge of the comparative number in the adjoining hospitals of Birmingham, Sheffield, Derby, or Leeds; but I believe the disease will be found little more frequent in any of those places, than in Nottingham.

It may not perhaps be easy to account, in a satisfactory manner, for this diversity. Scrofula has been said to arise in some cases from calcareous earth in the water which the inhabitants use, and the Goitre of Switzerland, with the Bronchocele of the mountainous parts of Derbyshire, have been often adduced to prove this statement. But the conclusion has been drawn prematurely, for if calcareous matter be alone adequate to produce Scrofula, we should expect that the inhabitants of Paris would be more afflicted by it than the inhabitants of almost any other place; since it is well known that "the water of the river Seine, with which

⁴¹ In Medical and Physical Journal.

that city is supplied, is so impregnated with calcareous matter as to incrustate, and in a short time choak up, the pipes through which it runs.”⁴⁵

Taking for granted, in the absence of positive evidence to the contrary, that Paris is not afflicted in any uncommon degree with this disease, it would appear that a late amiable and much lamented Physician has laid too much stress on the impurities of water in Manchester, as an exciting cause to glandular disease. Neither can the presence of calcareous matter in water account for Bronchocele, until it explains why it is a sexual disease. To me it appears to be excited by the same cause which produces enlargement in the absorbent glands, and that cold is frequently that cause. That part of the neck in which the thyroid gland is situated, is in women exposed to every variation of climate, whilst in men it is defended by clothing. I am disinclined to impute the glandular disease in Manchester to the impurity of the water, because there are

⁴⁵ Percival's Medical Essays, vol. i. p. 183.

other causes which appear fully adequate to produce it. The children, from a very early period of life, are cooped up in cotton mills where the atmosphere is seldom below 60°; ventilation is not, or cannot be sufficiently attended to; the constitutional powers are thereby much weakened, and the frame rendered less able to resist those effects which the application of any external agent is calculated to produce. To this source of disease may be added their inhabiting damp cellars, and their strong propensity to indulge in the use of spiritous liquors.

Meteorological observations shew, that more rain falls in Manchester, than in most other parts of the kingdom. After the day's confinement in heated rooms, the children are exposed to the cold and wet, they are generally without shoes and stockings, and the rest of their clothing is little calculated to defend them from this sudden transition. Their diet also is poor and meagre, can it then be matter of surprise, if disease should arise in the absorbent system, when we know that exposure

will produce it in parts that are less susceptible, and under less favourable circumstances?

Weavers, who constitute a large portion of the people in the neighbourhood, are much afflicted with Scrofula, the rooms in which they work are damp and cold, and I am inclined to believe that, independently of their vegetable diet, the same cause which operates in the factories, may have its influence here.

Dr. Lamb has attempted⁴⁶ to account for Scrofula and other constitutional diseases, from another ingredient in water, which he calls the "septic poison." This consists, according to Dr. L. in arsenicated manganese, and is produced by decomposition of animal and vegetable matter. Are these diseases a natural consequence of its action, if we admit its existence? Facts appear to controvert such a supposition.

Man, in a savage state, is almost exempt from these affections; are the stagnant waters of his marshes, more pure than the springs of

⁴⁶ Medical and Experimental Inquiry into Constitutional Diseases, by W. Lamb, M. D.

our own countries? Is there no vegetable decomposition in the trackless wilds which he inhabits? Does he never subsist on food in a putrefactive state?

Whether we consider that this "septic poison," which "putrefaction engenders," renders the body more liable to be acted upon by external agents, "as heat, cold, intemperance, the passions &c," or whether we class it with them as an "exciting cause of disease," like difficulties occur. Dr. L. observes that "in seasons of scarcity and dearness, far greater numbers probably perish from the bad qualities of the provisions, than from absolute want." But do they perish from Cancer, Gout, Consumption, or Scrofula?

In towns where the besieged have not a sufficiency of "stagnant and offensive water;" where "putrid meat, musty bread, and in short, every article of diet approaches to corruption;" and where this "true poison to the human body" would be applied in its most concentrated state, Dr. L. would not expect, or would look in vain for patients afflicted with Gout.

Further, this author observes that "solutions of common salt, present appearances similar to common water." The use of meat prepared with it, is with him an object of caution, and is at best very suspicious." Are constitutional diseases then amongst the evils most dreaded in long voyages? Dr. L. will not, I am sure, answer in the affirmative.

Dr. L. has produced two or three cases of "pains in the stomach," and of "hot pimply eruptions on the skin," which were relieved by changing the water. But does it follow that "Scrofula, Consumption, Mania, Epilepsy," and a long train of other ills originate in the same source? Dr. L. has not produced a single fact to verify so fanciful an hypothesis, which cannot satisfactorily be explained away.

His method of cure by distilled water is liable to equal objections. Indeed nothing need be urged in support of this assertion, after the following quotation from his book.

"It may be asked whether rain water may not serve as well as distilled water, as it is free from all the fixed principles

of spring water; but I suspect that there are volatile principles which are injurious to the human system, as well as those which are fixed." The inference is obvious, and will, I am sure, be premeditated by a very young reader. If these principles are so volatile, that water, when evaporated at the common temperature of the atmosphere, is impregnated with them, how much more will it be impregnated, when raised to a heat of 212° , as it is obtained by distillation; and how much more noxious will it therefore prove? Dr. L. has not, I believe, the merit of originality. In 1778, a work was published by Dr. Hardy, in which he endeavoured to shew that gout had its origin in metallic impregnation. He mentions arsenic, lead, tin, copper, &c. and his work occasioned a warm controversy.

If, in conclusion then, Scrofula pursues the action of, and is excited by whatever excites chronic inflammation; if it occurs where indolent actions must of necessity be found, and in those situations where inflammation is likely

to be produced; if it arises after debility by whatever cause produced, and varies in degree and duration according to the constitution; I see no reason to call in the aid of a something which is not cognizable to our senses, and cannot be traced by its effects. I am more particularly averse from such a supposition, until it can be shewn, that these bodies are not liable to simple chronic inflammation, and wherein that inflammation differs, from the disease in question.

SECTION VI.

Treatment of Scrofulous Absorbent Glands.

It is often more easy to prevent, than to remedy disease, our attention therefore, should be directed to the general health, and to the removal of any exciting cause of inflammation, in those children whose frames are weak and irritable; for this purpose, exercise, a due use of animal food, a proper attention to the bowels,

and warm clothing are necessary. The exercise should be regulated by the patient's strength, in no case should it be so violent or long continued, as to occasion excessive fatigue, because debility is as certainly produced by fatigue, as by the stimulus of wine. The child should be allowed a moderate quantity of animal food once a day, the quantity must be regulated by the appetite, and by the powers of digestion. Puddings, milk, rice and other farinaceous matter, ought to constitute the remainder of his diet, and hot slopping liquors should be entirely abstained from.

It will generally be found necessary to allot a considerable portion of time for sleep, to children who are in danger of Scrofula. But their covering should be slight, and night and morning perspirations must be avoided, or immediately checked. The shower bath should be used, provided no pulmonic affection contravene. I prefer the shower to general bathing, because children will generally bear a greater degree of cold when thus applied, than when immersed in the water. The

temperature of the water should be regulated by the constitutional powers, in no case ought the cold to be so great, or so long continued, as to produce its directly sedative effects. It must be sufficient only to excite a glow over the whole frame, and should be regulated by this re-action. The child must be rubbed dry with rough cloths, and the friction will be still more advantageous if continued a quarter or half an hour.

If the weather be cold, or the child debilitated, a flannel dress may be thrown on; but on no account should the friction be omitted. Flannel constitutes an article of dress which is indispensable, it should constantly be worn next the skin, and if the weather be unsteady, or so cold that the child is unable to counteract its effects, a fur of any description may be worn round the neck. This is the more necessary if an enlarged gland have already appeared. A hare's skin fastened to the night-cap and fitted to the part, may be substituted in the night, and worn with the fur side in contact with the skin. By

these means we shall not only be more likely to promote the discussion of the tumour, but prevent the enlargement of other glands by the removal of at least one powerful exciting cause.

Cooling washes, and the early and frequent application of leeches, must be combined with this general treatment. The washes must not be of so low a temperature as to induce shivering, or to produce a cold; as it is by their continued use that they will take off the disposition to enlargement. The patient will not bear the loss of much blood, but we must consider that the advancement of the disease, and the long continued ulceration, will occasion much greater debility than the local blood letting; and it is the frequent application of this remedy, not its excessive adoption at one time, which I am anxious to inculcate. I wish it merely to relieve the indolently increased action, which attends the enlargement of the gland. This mode of treatment will produce a slow, but lasting effect, whilst more violent methods will weaken or derange the constitution, and

render it more liable to be acted upon by exciting causes. The bowels must be kept solvent rather than loose, but where there is sufficient power, an occasional and gentle purgative will do good, by producing a determination to other parts. Calomel is frequently administered for this purpose, but rhubarb will answer equally well, and will not only stimulate, but strengthen the bowels.

Though these means have been persevered in until the inflammatory action be subdued, the tumour will scarcely be decreased in size. In the commencement it is generally built up of effused lymph, which sometimes becomes organized before the Surgeon has been consulted, or before the means which he has used have had the desired effect. But whenever we are assured that the tendency to enlargement is removed, a fresh mode of treatment should be adopted; we must now by stimulating applications promote the absorption of the tumour, care being taken that re-action is not produced.

It is perhaps of little consequence what

cooling washes are made use of, since they have an almost equal tendency to decrease arterial action by evaporation. When the progress of the tumour is arrested, it may be necessary, and is at least safe, to render the application more stimulating, so that whilst evaporation is continued, a gentle stimulus may be kept upon the surface; and this stimulus may be gradually increased as the parts are able to support it. To accomplish these ends, I apply a solution of the sulphate of zinc, and increase its strength from half a dram to a dram and a half of the salt, in eight ounces of water. Friction with the volatile or camphor liniment, combined with mercurial ointment, must then be regularly used; or, if the tumour be conveniently situated, an issue or seton may be inserted over it: a blister is perhaps more useful, if kept open by the savine cerate.

Friction with the bare hand is recommended by Mr. Grosvenor of Oxford, and if persevered in, is of singular utility. My practice has fully justified the encomiums which have been bestowed on this remedy, and I

should generally prefer it to the application of stimulating liniments, which soon abrade the surface of the cuticle, and render a continuance of the friction impossible. But the practitioner will often have much difficulty in prevailing upon his patient to use the friction to a sufficient extent.

Electricity, as a means of promoting absorption should not be passed over, for in some instances it is strikingly beneficial; but the adoption of these remedies in individual cases, must be left to the judgment of the practitioner, and needs not therefore be further insisted on.

The progress of the tumour must be carefully observed, and if a disposition to enlargement appear, the stimulating plan should immediately be discontinued. In very irritable habits, this will be found particularly teasing, and the recurrence to leeches frequently necessary to prevent it. I have continued the application of cooling washes to the part, after the friction, and I believe it will frequently be found to render these cases less troublesome.

In the use of cooling washes, I have uniformly been governed by the principle of subduing the increased arterial action, and of regulating the temperature of the part, not of reducing it below the healthy standard. The use of them will not therefore be found inconsistent with the directions which have been given respecting clothing. In weak constitutions, warm coverings should be worn over whatever cooling applications are made use of, for a rapid evaporation does manifest injury, by deranging the constitution.

If the cold which is produced by evaporation be very considerable, it will destroy the power of the part; the skin will assume a livid redness, which the Surgeon may mistake if he do not attend to the temperature, for an increase of inflammation; and by persevering in the means of reducing it he will cause the parts to slough away. This appearance, and these effects, may easily be produced in weak habits, if the glandular enlargement be considerable.

When the practitioner has recourse to

stimulating applications, his efforts will be much assisted by the exhibition of small doses of calomel, every night and morning. If the bowels be irritable, a grain or two of the extractum conii may be combined with it, and if the appetite be defective, three or four grains of carbonate of iron may be given also.

To prevent salivation, and to increase the effect of the mineral, its use may be occasionally omitted a few days; or a purgative may be added to it. Where the habit is weakly, and the bowels irritable and loose, the former means should be adopted; but where the constitution is naturally good, the use of an occasional purgative can seldom do harm, and will often be materially useful.

By persevering in the practice which I have pointed out, and by regulating the constitution of the patient, I feel confident that a Surgeon has means in his power which are fully adequate, in most cases, to produce the resolution of these tumours.

Too much attention however, I repeat, cannot be paid to the history and progress of

the disease, for the glands have so little sensation that the Surgeon will have occasion for all his powers of discrimination, to enable him to judge of the propriety of discontinuing the sedative, or adopting the stimulating modes of treatment.

The practitioner will not be discouraged, though pus be effused, and an abscess formed; since, by attending to the general health, he will not be a loser by a protraction of the local complaint, he will rather have greater power of subduing it as the strength increases. Cooling applications, and leeches, must be again resorted to, until the inflammatory action subsides, when we must recur to the use of friction, stimuli, &c. and if the swelling be situated in a part which will admit of it, pressure will be found most useful.

Should the abscess increase, notwithstanding our efforts to prevent it, the glandular swelling with which it is accompanied, will regulate its future treatment. When it is formed of simple effusion, and is uncombined with enlargement in the gland, or when

that enlargement is not considerable; the most beneficial practice will be, I believe, to evacuate the matter: for if we wait until the skin be ulcerated, the cellular membrane, having been so long exposed to diseased action, will ulcerate or slough, and the death of the skin must inevitably follow.

As soon as we are convinced that the abscess will continue to enlarge, it appears proper to puncture it, because the adhesions by which its boundaries are circumscribed are so slight, that a trifling pressure destroys them. The abscess extends laterally therefore, instead of approaching the surface, and as the whole cavity sloughs on exposure, the isolation and death of the skin, and the size of the ulcer, will be proportioned to these circumstances.

I have already noticed the action which appears an effort to retain life in the skin. Perhaps I might have added, that this effort rather facilitates its destruction, since however trifling it may be, it is greatly beyond its powers to regulate. The death of the cutis

proceeds slowly, but as no cicatrization can take place, until the healthy portion is separated from that which is diseased; and as few granulations will rise, where there is an inflammatory action; the importance of preserving the skin by an early evacuation of the abscess, need not be further urged.

CASE.

A young man twenty two years of age, had a small abscess immediately above the sternum, which had existed some weeks, and gave him no pain. There was little thickening in its base, and no glandular enlargement. After leeches and cold washes, an ammoniacal epithem was applied; but the young man's affairs called him into another part of the country, and upon his return, at the expiration of three months, the abscess had burst, and its base reached entirely across the sternum. The discharge was considerable, the whole of the cavity inflamed and sloughed, and the skin died; the ulcer was consequently very large, and the restoration of the lost parts tedious. At the end of a year, it was not entirely

healed. Had this abscess been opened at a more early period, it is evident that the sore could not have been so large, because the ulceration would not have extended beyond the diseased portion of skin.

By an adherence to this practice a further and more important advantage may be obtained, I mean the prevention of ulceration in the cavity of the abscess, and its obliteration by adhesion. Because, though I believe inflammation exists in every period of the disease, yet it cannot be denied that it becomes more considerable as the ulcerative action is more extended. In proportion to the inflammation, is the chance of destruction in the cellular membrane; the matter should therefore be evacuated before this increased action has taken place, and whilst the cells retain sufficient vigour to support their life, and to produce re-union. It is true that in whatever manner, or at whatever time, the abscess is opened, ulceration will follow; but if the inflammation has not been considerable, it may generally be prevented from increasing, by continuing

the cold applications, after the abscess is evacuated.

I know not what opinion may be formed of this theory, but the benefit of the practice, I have often witnessed, and I can therefore confidently recommend it. An abscess, which if allowed to ulcerate would occupy many weeks or months, may by this treatment be obliterated in a few days. It is not perhaps easy to account for the difference in the effect of the same application, when applied to an abscess with the skin entire, and to the cellular substance, in which the abscess is formed: in the one case, it shall not arrest its progress; in the other, the discharge will immediately cease.

My first trial of this treatment was in a girl about twelve years of age, who had a small abscess between the metacarpal bones of the little and ring finger, on the back of the hand. It had been preceded by inflammation, to which cold washes were applied, and when the abscess had approached the skin, it was punctured; the cold stupes

were continued, and in three days the abscess was obliterated.

CASE.

I was in attendance on a young woman, the daughter of T * * * * * who had many years been suffering under glandular disease, the remains of which were visible on the arms and neck, and in the axilla. During the last year, she had an abscess formed over the tibia, which was followed by disease in the knee, and by a large collection of matter under the fascia of the thigh. She had night sweats and diarrhœa, and a troublesome cough, with expectoration. Her appetite was defective, and she had much pain.

In addition to these distressing complaints, an abscess formed on the upper edge of the pectoral muscle, and below the clavicle. As there was some inflammation on the skin, cold applications were used, notwithstanding the existence of cough, and of pain under the abscess, on deep inspiration. The progress of the disease was not materially impeded, and

when it began to point, four ounces of pus were evacuated through a small opening, and the cold applications were continued. On the second day, there was very little discharge, and on the fourth, the puncture was healed, and the abscess obliterated.

CASE.

A boy, about five years of age, had a glandular swelling on the left side of the neck, with a collection of pus exterior to it. I punctured the abscess, and allowed the orifice to remain open, so that its contents could easily be discharged. Cold stupes were applied, and in a few days, the walls of the abscess had united by adhesion, leaving the gland somewhat larger than an almond, but perfectly moveable, and without pain. This boy had tenderness in the eyes, the meibomean glands were ulcerated, he was costive, and his appetite was defective. After a brisk purgative, he took three grains of the sub-carbonate of iron, twice a day; a stimulating ointment was applied to the eye-lids, and by the continuance of the cold application to the

gland, assisted with occasional and gentle friction, his complaints disappeared.

I have hitherto considered that the scrofulous ulceration is less managable, than the ulceration which follows a phlegmonous action, because there is little constitutional power. Whether this opinion be correct, it is perhaps of little consequence to decide, if, as these cases appear to shew, we may almost certainly prevent the inflammation which follows the exposure of the cavity.

It was with this view that I continued the cold applications, and I attributed the complete command which they appeared to possess over these actions, to their frigorific quality: but that other circumstances are necessary, will now, I think, be fully shewn.

CASE.

T * * * * * of Chapel-field, applied to me on account of two swellings, one of which was situated beneath the left submaxillary gland, the other on the edge of the sterno-cleido-mastoid muscle; the former consisted of coagulable lymph, which had been effused into the interstices

of the part; the latter was an abscess without glandular enlargement. Leeches and cold applications were used, but as the disease had existed several years, and as there was little tenderness, the remedies were changed for friction with stimulating embrocations. By these means, the submaxillary absorbent gland gradually, but progressively, decreased; whilst the jugular swelling extended laterally, and a tenderness was complained of, on pressure. The fluctuation became more perceptible, and when the abscess appeared disposed to point, it was opened, and about two ounces of healthy looking pus were evacuated. Wishing to try whether cold applications would prevent it from filling again, I closed the puncture by adhesive plaster, and applied stupes over it wet with a diluted solution of the acetite of lead. At the end of three days, the skin covering the abscess had become inflamed, the patient complained of much pain and tenderness, the abscess had filled again, and in taking off the plaster, pus issued forth with great violence. The orifice appeared disposed to ulcerate,

and its lips were inflamed. The plaster was not re-applied, and the patient was desired to be particularly attentive to keep the cloths moistened. This treatment was followed with great abatement of the pain, and of the inflammation on the skin; and the discharge decreased, though it was yet considerable.

Disappointed in my expectations of procuring immediate adhesion, for this was the first case in which my expectations had been too sanguine, I was anxious to ascertain the cause, and felt disposed to account for the failure, in the neglect of my patient; but his anxiety for relief, and his assertions to the contrary, entirely removed this impression. In despair, and without any other expectation than having to witness a long, tedious, and disgusting process, I substituted a solution of the zinci sulphas for the lotion he had hitherto used. The effect was admirable. In about a week the abscess was entirely obliterated by adhesion, and not the least vestige remained, except a little thickening around the puncture, where it had united with the plattisma myhoides.

These cases might easily be extended but it appears to me unnecessary. Where I have endeavoured to attain this object, I have used the sulphate of zinc in solution, and I am so confident of its success, that I should consider a Surgeon unpardonable who had an extensive scar from this species of scrofulous abscess.

That I may not appear to over-rate this treatment, I shall beg leave to relate the cases in which it has failed.

CASE.

I was consulted by a Gentleman for an enlarged absorbent gland, situated under the sub-lingual gland. He had extensive scars below each ear, and had been occasionally afflicted with scrofulous complaints from a very early period in life. There was considerably more redness on the skin than is usual in these cases, but it was probably produced by a plaster he had been using. An abscess had formed, but the integuments were thick; there was also some puckering. The usual means of removing it were ineffectual, but it did not approach the

surface; the man became impatient, and was anxious to have it punctured. After a week's application of a poultice, I complied with his request, and discharged nearly half an ounce of a serous fluid. A solution of the sulphate of zinc was applied, but the orifice became fistulous; poultices were again used, and after a very considerable time the wound healed.

When the sac of the abscess is very insensible, as when the pus is contained under a fascial sheath, it will be tedious in approaching the surface, and if the Surgeon do not puncture it, its lateral extension will be very considerable. In these cases, the application will not produce adhesion, and the abscess will again be filled.

CASE.

A young woman, aged twenty-one years, had applied to a Surgeon in Manchester, for a scrofulous abscess under the chin, which was allowed to ulcerate, and the practitioner gave her a certificate as a proper object for a sea-bathing charity. I was desired to visit her

by a lady in the neighbourhood, to whom she had applied for this purpose.

Besides the ulcer near the lower jaw, she had an extensive abscess, which covered the whole of the infra-spinatus muscle, and extended to the margin of the axilla. I evacuated it, and discharged about four ounces of a thin serous fluid, mixed with large flakes of curd. Several of these coagula remained within the cavity, and gave a peculiar sensation to the finger. The sulphate of zinc was applied in solution, the aperture healed, but the abscess filled, and its contents were repeatedly discharged.

An ointment of tartarized antimony was well rubbed upon the surface, but though it excited considerable irritation, the contents of the abscess were not at all reduced, nor did it approach the surface. On being again punctured, a strong solution of the sulphate of zinc was injected into it, and retained about ten minutes. It excited little uneasiness, and the parts united by adhesion.

But even in these cases, the practice will be successful, if a little more active inflammation

have attended the formation of matter, than generally exists with Scrofula.

CASE.

A young woman, eighteen years of age, had an attack of inflammation of the thigh. Her pain was deep seated, the limb was much swollen, the skin was glazed, but not much discoloured. A fluctuation was perceptible, though the tenderness was so great that she could scarcely bear it to be touched. Fomentations were applied, which relieved her pain; the tenderness abated, and the fluctuation became more evident.

I punctured the abscess, and discharged about ten ounces of healthy looking pus; the orifice was left open, and in the course of the day about four ounces more flowed from it.

A cold solution of the zinc. sulph. was kept upon the part.

The discharge continued the next day, but no inflammation had come on, the limb had been much easier, the aperture shewed no disposition to ulcerate. To continue the lotion.

Fourth day, I visited her, and found her

able to walk. The opening had united by adhesion, though a small quantity of pus remained in the cavity of the abscess, which a stimulating embrocation, with a roller applied round the thigh, speedily removed.

When a different treatment has been adopted, and the abscess allowed to burst; the skin which covered it will participate in the disease, and will die when the cellular membrane is destroyed. It is yet the duty of the practitioner to save as large a portion of this skin as is practicable, and if possible restore it to its healthy action. If the ulcerated point become closed, and the cavity of the abscess fill again, it is necessary to re-open it, or an ulcer will be formed on another part of its surface, and the skin will have less chance of regaining its lost powers, than if it had remained open, and had ulcerated only on one point. It will in either case die, rather from being deprived of blood, than from too great an action; and the circumscribed red line, which is always observed at some distance around the ulcer, serves rather to denote the point of separation

between the healthy and diseased skin, than of inflammation.

If the disease be not arrested, ere it attain this point, the Surgeon must too often have the mortification of witnessing its progress of death, separation and reproduction; all of which are tedious in being accomplished, in consequence of the want of action, or of power to support it: and I may, I hope, be allowed to urge these considerations more strongly, since it appears to me easy to prevent such an occurrence from taking place. When the sore is irritable, and the ulceration somewhat rapid, an aqueous solution of opium, or of hemlock, should be applied, till the disposition be removed. A small quantity of spirit may be gradually added, to render the application more stimulating, and the sulphate of zinc, or of any other metallic salt, afterwards substituted.

When the diseased skin has separated, and the sore has put on its indolent character, with a slough perhaps covering its surface; solutions of the neutral or metallic salts, as of the

muriate of ammonia, oxy-muriate of mercury, nitrate of silver, or the sulphate of zinc, will stimulate the ulcer to shoot forth granulations ; and the strength of these applications should be gradually increased, as the ulcer is accustomed to the stimulus. In other cases, the local application of calomel in lime water, will be found useful ; but care must be taken, lest it convert the ulcer, into an irritable and spreading sore.

Sorrel, has been noticed as a remedy for scrofulous ulcers, but like many other applications it has fallen into disrepute, chiefly perhaps for want of sufficient data. Where the granulations rise above the surface, and are broad and flabby, and where pressure cannot be applied, the sorrel poultice will often repress them ; and when it cannot be obtained, lemon juice in water will have a similar effect. But both these remedies must be discontinued, when this event has been obtained.

Salt water, is another remedy which has obtained much celebrity, and is universally

applied. Yet many practitioners will, I believe, confess their disappointment, and will have found some instances where the patient returned from the sea, with the ulcers extended. Indeed, where the habit is very irritable, an ulcer which has been some months healed, will have the cicatrix become open, and will continue to ulcerate, until the patient is removed from the sea shore. It would be presumptuous in me to point out the cases which alone are likely to be benefited by this remedy; but when the skin is ulcerating, or when any other portion of the sore is in an irritable state, I should expect little benefit from the application of sea water, and should not recommend it, except the advantage to the general health, would more than counterbalance the injury which the local disease would, in my opinion, be likely to sustain.

The common principles of treating these complaints can here of course only be insisted on. Their shades of difference vary to an infinite degree, and no general description will convey to the mind, an accurate idea of

individual cases. My wish is to call the attention of those practitioners to the local appearance of the sore, whose opportunities of observation are more extensive, and whose knowledge of disease is more accurate than my own. I wish it merely to be understood that the principles which regulate our treatment of other ulcers, should be applied here, and should be directed with increased accuracy of observation.

In attempting to form a mode of treating scrofulous ulcers, by analyzing the symptoms, and by directing the attention of Surgeons to a more strict examination of their progress and appearance; I am, I think, pointing out the most certain index by which their practice can be regulated. It is, at least, more philosophical than to search after, what appears not likely to be found, a remedy which will be equally efficacious whatever may be the characters of the disease. But the progress of the disease is an index not only of the local action, but it is a test of the constitution also; it is one at least, and not an

unimportant one, amongst other symptoms, by which the bodily disposition will be ascertained.

If an abscess is combined with considerable enlargement of the gland, I have occasionally punctured it, and applied the zinc lotion. When the disease is very slow, this temporary relief from the distension, has arrested its progress, and the aperture has united; and in others I have thought the ulcer less extensive, and more uniform, than it otherwise would have been: but again I have been disappointed, and have found the lateral extent of the abscess depend on the size of the gland, and on the actions which attend it; and that we have less control over, and less power of reducing the latter symptom, when an ulcer is formed. On the whole therefore, this treatment will be of the least use, when the gland is largest; and we may resort to its adoption with most confidence, where enlargement constitutes the least prominent feature. In the gradation between these extremes, the case must be regulated by the judgment of the practitioner.

In the second species of scrofulous affection, there is simply an enlargement of the gland, and we find the disease less rapid, because a part which has become organized, excites less irritation, than the contents of the abscess.

The treatment will vary little in its early stages, from that which has been already recommended; as the subtraction of blood and heat, are the principal means to be resorted to, in reducing increased actions. But the greater indolence which exists in the action of this species of the disease, will authorize a more early adoption of friction with stimulating liniments, particularly if cold applications be kept upon the part when the friction is discontinued. When the disease has existed a considerable time, without producing inflammation on the skin, the Surgeon may resort to this treatment as soon as he is consulted.

If the skin participate in the actions of the diseased gland, leeches must be frequently applied upon, or in the vicinity of the gland, and combined with cooling washes until it

is removed; when blisters, friction and electricity, should be substituted. These cases generally terminate well, but are tedious in being resolved, especially where the lymph has become organized. The only caution which it appears necessary to give, is to prevent re-action from taking place. When an ulcer is formed, it must be treated on the principles which have been already pointed out.

I have only seen one case where an abscess was contained in the substance of the gland, constituting what I have considered the third species of glandular affection; and it so rarely occurs, that it seems almost unnecessary to speak of its treatment; as it consists only in the proper combination of the refrigerant and stimulating applications. I am not able to determine what difference will be produced in the ulcer.

In attempting to form some criterion, by which the constitutional treatment may be conducted, it will not be expected that I should dwell with minuteness on any article as a specific. I despair of seeing such a remedy, first,

because no medicine can prevent the absorbent glands from becoming inflamed; and secondly, because it appears inconsistent to expect the same remedy, or the same mode of treatment, will be equally beneficial to an ulcer with its surface covered with a slough, and with its base and edge thickened; and to another which is so irritable that it spreads in every direction.

The only specific which I have seen extensively given, is the muriate of lime. I can say little in its praise, for I think in at least one hundred cases, I was not able to distinguish one which amended from the use of it, where the amendment could not otherwise be satisfactorily explained.

The mineral which is a specific in syphilis, gives to the constitution, or to the vessels of the part, the power of absorbing the thickened edge and base, which is characteristic of that ulcer; but who would venture to give it to the same extent in those cases of phagadæna which Dr. Adams has noticed, or in some of the sores which have been so accurately

described by Mr. Abernethy? The almost unvaried success with which the judicious exhibition of this remedy is attended, in the disease alluded to, has led practitioners to give it in Scrofula; and it has been as extravagantly and injudiciously extolled as a specific on the one hand, as it is unjustly depreciated on the other.

In the early stage of scrofulous complaints, the exhibition of mercury will uniformly do harm, and it should be most strictly abstained from, where the disease is most rapid; but when the disposition to enlargement is removed, and when stimulating liniments, friction or blisters, produce no re-action, mercurial medicines may be given with great advantage, and will facilitate the absorption of the tumour.

Where the disease has produced inflammation on the skin, similar cautions are necessary to be observed, as every preparation of mercury would increase the irritation. But when this symptom is removed, mercury may be resorted to with confidence; though salivation must be carefully prevented from taking place.

I would advise the early opening of scrofulous abscesses, because if the result of the after treatment, which I have recommended, should not be complete, it will at any rate prevent the sloughs from being so extensive as they would otherwise have been: and where the re-production of lost parts is so difficult to be effected, the utmost attention should be directed to preserve them.

Besides, where the disease has long existed, and is kept up by habit, one part of the ulcerated surface will be covered by granulations, and another portion covered with a slough, whilst the skin is gradually ulcerating. No application can be equally beneficial to these different stages, and much time will pass away in attaining one uniform character in the sore.

When, as in this case, the skin and cellular membrane are under the influence of a disease which they have no power to support, mercurial preparations would be highly injurious; but when the irritable actions are removed, and a slough only covers the ulcer,

they will be again admissible, though we cannot be too cautious that the mineral is not pushed further, or continued longer, than is necessary to remove the cause for which it was exhibited. Indeed, it cannot be denied that it is frequently necessary to discontinue it, and soothe the ulcer, before this desirable event has taken place; after which the mineral may be administered, and combined with other remedies which tend to strengthen the frame, and decrease its irritable actions.

Ulceration appears a process instituted by nature to remove those substances which would otherwise die; every ulcerated surface has therefore undergone a degree of action, disproportionate to its strength, and is necessarily weakened by it. But weak parts are also irritable. These properties are, I believe, in a direct ratio with each other, and on this pivot the phenomena of scrofulous ulcers appear to hang. If we allow them, they remain indolent; if we excite them, they become irritable; and this irritability is the more teasing, since there is no constitutional power to subdue,

or even to regulate it. These facts, if I may be allowed to call them such, should, I think, be borne in mind, in the exhibition of this remedy in scrofulous complaints, as they direct us to the cause of so much contradictory testimony, and teach us how to avoid it.

Whilst the burrowing disposition continues in the ulcer, every preparation of mercury must be carefully abstained from, and must be re-commenced with great caution after it is subdued. For the cellular membrane underneath the skin, has been kept in quiescence merely by the prevention of inflammation; and as mercury will act upon it more powerfully, than upon the substance of the gland, the effect will be produced, which I have observed should be most anxiously avoided, —the subsequent death of the skin, and the spreading of the ulcer.

Mr. Abernethy employs calomel as a constitutional remedy in scrofulous complaints; his success may be estimated from his own words. “I have remarked in many instances diseases of the absorbent glands which are

usually and justly denominated scrofulous, occurring in adults." "In several cases, the local disease was of long duration, and had become worse rather than better, under various plans of treatment, yet it amended regularly, and sometimes even speedily, in proportion as the digestive organs were corrected." ¹

"I have also seen instances of sores apparently scrofulous, left after the suppuration and ulceration of diseased glands, which had continued for more than a year, heal rapidly under the same kind of treatment: I have however seen other instances, in which the sores did not appear to be mended by such constitutional treatment." ²

I think it may be inferred where these constitutional means were of service, that the ulcers had acquired their characteristic indolence; their long duration at least, appears to authorize this conclusion, since they could not, I conceive, continue so long in an irritable state. This then, would be the most

¹ Surgical Works, vol. i. p. 154.

² Ibid. p. 164.

favourable time for the exhibition of calomel, and its good effects were apparent. Though no opinion of this very excellent Surgeon ought to be slighted, I beg leave to observe, that he has given us no data by which we may exhibit calomel in this disease, except derangement of the digestive organs; whilst he admits, with his usual candour, that in some cases this is not a sufficient guide, and that attention to other appearances is therefore necessary.

Mr. Abernethy believes that enlargement of scrofulous glands, is frequently caused by irritation in the stomach; Mr. Carmichael is also of this opinion, and gives some cases to illustrate it:³ but as this view of the subject, if correct, does not lead to a practice which is applicable to all cases, and as it does not point out any means of selecting those which are most proper, I shall not, I hope, be thought presumptuous, in having taken another view of the subject, which appears to me, equally scientific and successful.

³ Essay on the Nature of Scrofula.

The attention of practitioners was directed to the efficacy of cinchona bark, in scrofulous complaints, by Drs. Fordyce and Fothergill, in the Medical Observations and Inquiries. It is generally and extensively given, and though far from being a specific, its exhibition is often attended with beneficial consequences.

In the early stages of the disease, this medicine will have little effect, and can be given only with advantage, where the appetite is defective, and the power of the stomach impaired. By restoring this organ to a proper tone, it gives strength to the system, and enables the practitioner to adopt a more active local practice, than he would otherwise be enabled to use. But, when the disease is protracted, when ulceration has taken place, and especially when the diseased skin is thrown off, and the wound is covered with a slough, or is filled with granulations which are broad, pale, and flabby; the bark will often give immediate strength to their actions,

and should be exhibited in as large quantities as the patient can bear.

In very irritable habits, granulations will shoot forth, which, though rounder and paler than is desirable, give reason to believe that the sore will soon heal. If the Surgeon give bark in considerable quantity, it will disorder the bowels, and the granulations will on a sudden be destroyed, leaving the ulcer of a greenish colour, with perhaps one or two points of granulation sprouting from its surface. This will sometimes happen without any perceptible cause and is particularly to be dreaded, if mercurial preparations be injudiciously given.

When Bark has been long administered, it loses its effect, in which case preparations of iron, or of arsenic, may be combined with, or substituted for it; but metallic preparations too often disorder the bowels. The sulphuric, and other mineral acids are also useful, if the patient have thirst, night-sweats, or febrile paroxysms.

A generous and nutritious diet, is useful in

every stage of Scrofula, but it is particularly necessary when the lost parts are to be restored. This truth could not be more strongly verified than it has been in the manufacturing poor in this part of Lancashire, during the late high price of provisions, and depressed state of commerce. In almost every case, where an ulcer was formed, whether from accident or disease, the healing process has been slow, and in many instances obstinate, from the want of a proper supply of animal food; whilst cicatrization has become rapid under the same local treatment, if the patient got admittance into a neighbouring infirmary, where the diet is sufficiently nutritious.

Cicuta, (*conium maculatum*) was recommended by Dr. Stork of Vienna, as a remedy in Scrofula; but it has fallen into comparative disuse, for practitioners in this country, have by no means found it to deserve the celebrity which it attained, in consequence of being recommended by this respectable physician. It is however an useful auxiliary to other medicines, and will often prevent them from

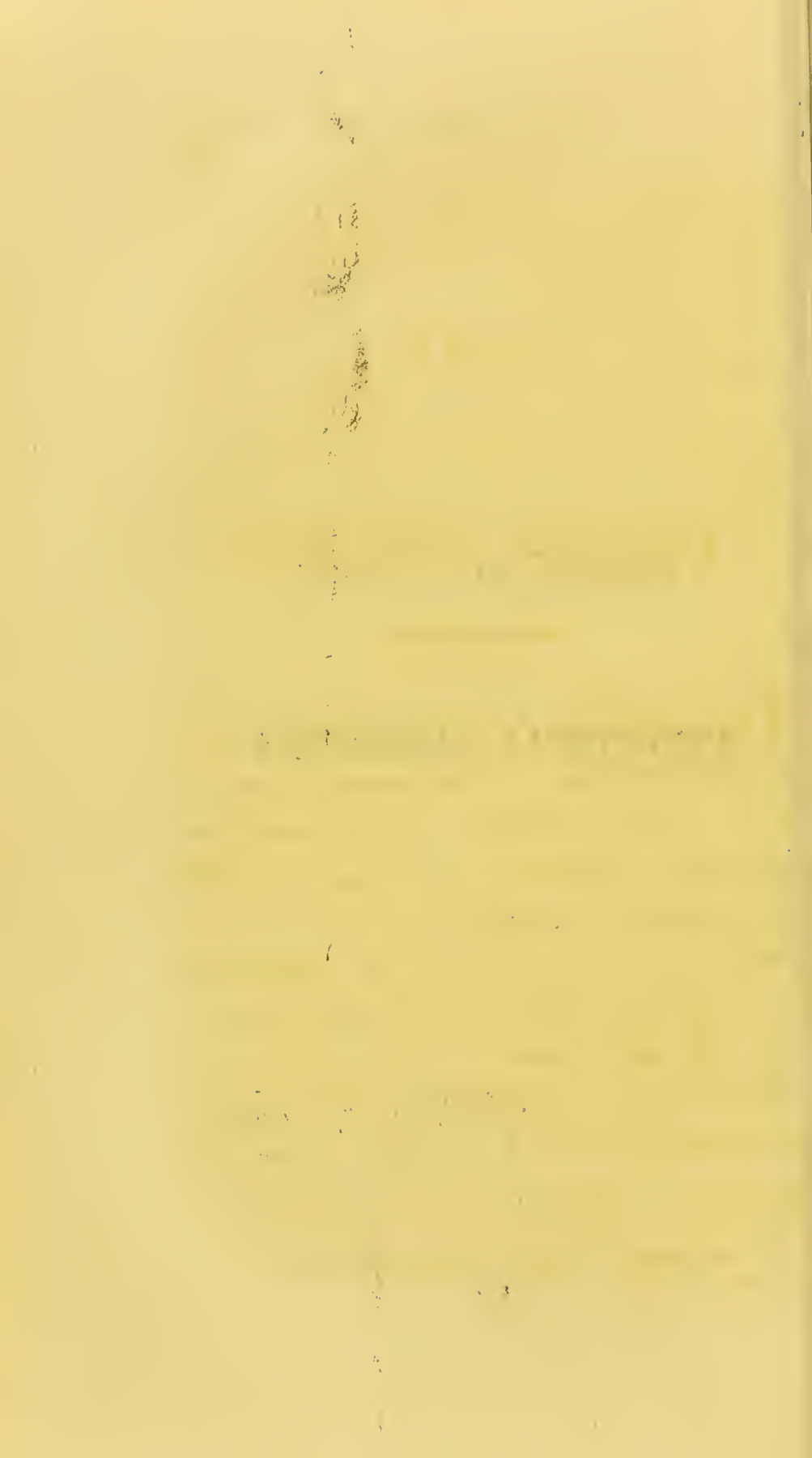
disturbing the functions of the stomach and bowels. In cases of great irritation, it may be given alone, but it is perhaps more useful to combine it with calomel, or preparations of iron, when either of those remedies is indicated.

I have already observed, and the fact cannot, I think, be too frequently repeated, or too strongly enforced, that every scrofulous ulcer requires the greatest attention, and the most accurate discrimination. It is necessary to keep in view, at the same time, the state of the gland, of the cellular membrane which surrounds, and of the skin which covers it; for though each of these parts has different powers of resisting disease, and of recovering from its effects, they are as mutually dependant on, and as certainly affected by each other, as the integuments of the head are affected by disease of the cranium, or of the dura-mater. I urge these considerations more strenuously, because a search after specifics has almost universally superseded this attention; and because the disease may not only be

simplified, but, as it appears to me, controlled, by adopting the practice which I have ventured to recommend.

But, when several enlargements exist, or when several ulcers have been formed, and are in different stages of their course, it requires few arguments to prove, that almost every application will be injurious to one, exactly in the same ratio that it will be beneficial to another. We must either check the progress of those ulcers which are disposed to heal, until others which are irritable have become inactive, and until the glands which are enlarged have ceased to increase; or we must allow the most favourable to pursue their progress, and palliate the remainder until cicatrization is secured.

SURGICAL CASES,
WITH
PRACTICAL REMARKS.



C A S E
OF
INGUINAL ANEURISM.*

IN the beginning of June 1811, I was consulted by John Ramwell, a stout muscular man, of a spare habit of body, a florid complexion, and about forty-one years of age. In 1808, he perceived a swelling, not much larger than a pea, on the inside of the right thigh. It caused very little pain or inconvenience, and did not increase so as to alarm him, till after his recovery from a severe dysentery, nine months before I saw him. From that period its increase was rapid. It had now

* Re-published from the Edinburgh Medical and Surgical Journal.

attained the size and shape of a pint basin, with its rim inverted; although six months before, it was not, by the patient's report, more than one-fourth of its present size. The tumour was situated on the superior anterior part of the thigh, extending along Poupart's ligament, to within two inches of the anterior superior spine of the ilium, and about four inches down the thigh. It was dense, circumscribed, and appeared to sink deep amongst the muscles. If grasped firmly, a dull pulsatory motion was clearly distinguishable; this pulsation was rendered more evident by bending the thigh upon the pelvis, and by a continuance of the pressure, the swelling became much less prominent. The artery passed along its most interior surface, and gave to the finger the peculiar thrill characteristic of aneurism. It retained this character, till it passed through the adductor femoris to descend into the ham, when it was no longer to be traced.

A bread baker by trade, the patient had been occasionally accustomed to great exertion,

in carrying loads of flour up several sets of stairs. But his employment, during the last seven years, had been chiefly performed in a sitting posture, and required little bodily effort. When I apprized him of the necessity of an operation, I learnt that he had already consulted two Surgeons, one of whom had advised the removal of the tumour by extirpation, the other had recommended the frequent application of blisters to it. This diversity of opinion was attended with a proportionate want of confidence in my patient, which induced him to defer the operation; and as his pulse was good, his appetite tolerable, his bowels regular, and his health little impaired, I gave him general directions, and desired to see him again in a short time.

At the end of a fortnight the swelling was somewhat larger. It produced a numbness in the thigh, and the leg towards evening began to swell. A troublesome cough now came on, which, with a few days hard labour, produced a more rapid increase. My friend and late master, Mr. Killer of Manchester,

who with my friend Mr. Hamilton, did me the favour to examine my patient, entirely coincided with me in opinion, and the operation was consented to, when the cough was remedied. For this purpose, opium with digitalis was administered, and rest, low diet, and occasional laxative medicines recommended.

From this period to the latter end of July, the tumour had increased so rapidly, that it was thought advisable to delay the operation no longer, though some cough still remained, and though the temperature of the atmosphere was oppressive. It was accordingly performed on Tuesday the 28th. of July, in the presence of Messrs Killer and Hamilton, whose very friendly attention on this and every other occasion, I have great pleasure in acknowledging.

I made an incision upwards of three inches in length through the integuments, beginning at the upper margin of the tumour, about three inches from the symphysis of the pubis, and carried it almost directly upwards. In the dissection of the cellular membrane which covers the aponeurosis of the external oblique

muscle, several arteries were divided, which supply the adjacent glands. These vessels were immediately secured, and more than two inches of the tendinous expansion was exposed. I carefully divided its fibres, and dilated the opening downwards, by the probe-pointed bistoury introduced upon the finger. The artery was now clearly distinguished by its pulsation. The fibres of the external oblique, with the margin of the internal and transversalis muscles, were also divided upwards, to allow sufficient space for the two fore fingers of the left hand to be placed in contact with the arterial sheath.

I endeavoured to detach the fascia, so as to be enabled to pass my finger round the artery, and met with considerable difficulty in the attempt. But, by keeping the vessel firmly in its situation upon the psoas muscle, with my finger and thumb in contact with it, I succeeded in passing the eyed end of a probe, about half an inch of which was bent to a right angle, under the artery, from within outwards. The shaft of the probe was likewise

gradually bent, to facilitate its turning in the wound ; and when this was accomplished, a double ligature being put through the eye, the probe was re-drawn. The upper ligature was tied as high as possible by Mr. Killer—the pulsation in the tumour immediately ceased. The lower ligature was also tied, but as the space between them did not appear to warrant the division of the vessel, it was left entire. The integuments were brought into contact, and secured by a couple of stitches ; stripes of adhesive plaster were applied, with a roller round the whole, and the patient was put to bed with the thigh bent upon the pelvis. The temperature of the limb had been kept up during the operation, by a flannel roller applied around it, which was still retained ; the whole limb felt comfortably warm, and he had little pain. At nine o'clock in the evening, I found his skin cool, tongue somewhat furred, pulse 100, wound easy. The leg and thigh were quite as warm as on the opposite side, foot a little colder. He had had a few short slumbers,

and had taken bread, butter-milk, and tea.
To take an opiate at bed time.

Wednesday, seven A. M.---He complained of much pain in the back, occasioned by continuing in the same position, which prevented him from sleeping; he was therefore turned on his back, with the knee bent, and supported by pillows, as in fracture of the thigh. He had occasional throbbing, some thirst, pulse 90, skin cool. The leg and thigh quite as warm as the other, the toes nearly so.
To take lemonade for his common drink.

One P. M. He had had an hour's sleep; cough somewhat troublesome; pulse 100; tongue furred in the middle; a little soreness in the belly. A gentle laxative was given.

At nine P. M. the limb was hotter than the healthy one; pulse 104, and fuller. He has had considerable pain in the head, which continued till seven o'clock, when he had an hour's refreshing sleep, and awoke better. The pain in his back continues troublesome. He has coughed little, and expectorates freely. No pain nor tension in the abdomen; tongue

moist, though furred; urine hot, but not highly coloured; no stool.

R. Sulph. Magnes. ℥ij.
Vin. Antim. gt. x.
Tinct. Sennæ ℥ij.
Aq. puræ ℥j. M. ft. haust.

To be taken immediately, and a saline draught every four hours afterwards.

Morning visit, (second day)---The patient passed the night with only an hour's sleep; he complains much of his back, and has a slight headache; face flushed; skin hot and dry; pulse 116, rather hard; no tension in the abdomen; cough troublesome in the night; water high coloured and scanty; no stool. To six drams of infusion of senna, and a dram of the sulphate of magnesia, half an ounce of the liquor of acetite of ammonia, and ten drops of antimonial wine were added. To be taken every three hours, until the bowels are opened.

Noon visit—He had a motion soon after I left him in the morning, and several hours comfortable sleep in the forenoon. Pulse 102, soft; skin cool; less thirst; back easier; cough still continues. The whole limb is comfort-

ably warm; he has perfect sensation and power of motion in the toes; belly quite easy. To continue his medicines till he has another stool.

He had some return of fever towards evening, but as it subsided he had two hours sleep, and was much refreshed. Pulse 108; head easy; tongue moist and clean; skin cooler; urine hot and high coloured. He has had another stool, and has taken plentifully of pottage, butter-milk, and tea. Twenty drops of laudanum were added to a dose of his purgative medicine, to be taken, at bed time.

Friday, August 1st. (the third day after the operation)---The dressings were removed for the first time. The inferior half of the wound is a mere line, the superior half nearly so. There is a slight blush upon the edges, but no pain nor tenderness; discharge moderate and healthy; tongue clean and moist; limb warm and sensible; appetite good; had a stool this morning.

Saturday—He has slept well the two last

nights, and has taken broth, pottage and milk; pulse 84; tongue clean; no thirst; bowels regular; limb comfortable. The wound is somewhat separated above the upper ligature; discharge copious, but quite puriform. The opiate to be repeated.

Sunday, (the fifth day)—The wound continues to look well; discharge copious; the ligatures from the small vessels, which were divided in the operation, have come away; the stitches beginning to ulcerate were removed also; the limb is warm and easy.

Monday, (sixth day)—Much as yesterday, except that his cough was troublesome in the night. He has also been much fluttered by a sudden noise at the door, but is now calm; the wound looks well, though a slough lines the opening around the upper ligature; discharge somewhat increased, but of a proper quality; pulse 82; appetite good. To take animal food once a day, and a pint of porter in the twenty four hours.

Tuesday—A week has elapsed since the operation; he continues to go on well; his

general health is good; bowels regular; pus healthy; the lower half of the wound continues united by adhesion, except where the stitches were inserted. The upper half of the wound is not more than a quarter of an inch in breadth; granulations healthy. The slough surrounding the upper ligature is in part removed, and little pain is complained of, though considerable pressure be applied to the parietes of the abdomen.

Wednesday—The patient has been taking, night and morning, during the three last days, pills containing half a grain of opium, digitalis and calomel, and three grains of rhubarb; his cough is now better; he sleeps well, and had a stool this morning; pulse 86; appetite good; discharge yet considerable, but healthy.

Friday—The slough lining the aperture, which I have before mentioned, is come away; discharge yet copious; has a stool daily; no pain; limb comfortable; pulse 84 directly after dinner.

Sunday—Continues to improve---discharge not so copious.

Monday—Much as yesterday; discharge greatly abated; granulations now closely surround the upper ligature; the lower ligature has created little irritation; the wound is united around it; the pulse during the last three days has ranged from 74 to 80; tongue clean; bowels regular; limb easy.

Tuesday, (the 14th. day)---The skin over the aneurismal tumour can be drawn up nearly two inches, though before the operation it was quite tense; the contents of the aneurismal sac are fluid; the wound heals.

Thursday—The ligatures came away yesterday; the patient is allowed to sit up in bed, and to move the limb occasionally; his appetite continues good, and his bowels regular.

It will not be necessary to transcribe further the daily progress which the patient made towards recovery. At the end of three weeks the wound was little larger than a pea, the discharge was trifling. He was now allowed to get out of bed, and walk about the room. Though very weak, there was no perceptible difference in the strength or feeling of the

limbs. The numbness in the thigh, which had become troublesome before the operation, still continued. The tumour decreased rapidly, particularly towards the spine of the ilium. At the end of a month, the swelling had decreased at least one third; the wound was perfectly healed, and the patient increased in strength daily; he was now able to take considerable exercise, having walked nearly two miles in one day; the limbs were of an equal strength and thickness, and the numbness in the thigh quite removed.

I much regretted that in this operation I could not adopt Mr. Abernethy's improved method of tying the artery, to its full extent, since I could not separate the vessel from its connections sufficiently to admit of its division, without a degree of violence, which would have more than counterbalanced the danger of a short space of the tube, between the ligatures, being left separated from the surrounding parts; yet I am decidedly of opinion, that the chance of success from the operation was diminished by this occurrence. I would

however in every case apply a double ligature upon the vessel, since the same process which prevents the accession of hæmorrhage by the application of the upper ligature, would appear likely to hinder such an occurrence from the lower orifice also, and by producing adhesion of the coats of the vessel at two distinct points, render the ulcerative process less extensive, and confine it in all likelihood entirely to the space between them.

The tumour, at the period of the operation, extended from the anterior superior spine of the ilium, to a short distance from the angle of the pubis, and its apex rose so high, that it rendered Poupart's ligament exceedingly obscure in this space. This rapid extension made me apprehensive that its basis would spread so far under the crural arch, that a sound part of the artery could not be reached without considerable difficulty. This circumstance appears the more likely to take place, when we consider the powerful resistance which the fascia of the thigh presents to the increase of the tumour beneath it, and the comparative facility

for its ascent upwards, where it chiefly meets with resistance from the fascia iliaca of Mr. Cooper. That the proper sheath of the femoral vessels in its natural state, can contribute little to prevent such an event, will be easily conceived; particularly if we agree with the same eminent Surgeon, that all crural herniæ are protruded, in the first place, into this sheath, and that the openings for the passage of the absorbent vessels are large enough to allow their exit from it.

The event, which I feared, took place in Mr. Abernethy's second case, and that it does not more frequently occur, is owing to that law which Mr. Hunter first noticed, by which extraneous bodies approach towards the surface, rather than extend in a lateral direction; and by the pressure of the projected fluid producing condensation of the surrounding parts.

The probability of the aneurismal sac participating in the irritation, which the presence of the ligatures may produce, will be in proportion to their contiguity. Mr. Abernethy, therefore, very judiciously directs, that the

artery be tied as high as possible, though the difficulty of reaching it is thereby increased ; and though in such cases, the Surgeon must lay aside the knife, as soon as he is able to reach the arterial sheath, and conduct the future steps of the operation by the finger, or by a blunt instrument introduced under the artery.

As the ulceration of the aneurismal sac would in any case produce so much constitutional irritation, as would render this operation doubly hazardous, and from the large size which the tumour had attained in Ramwell's case, almost certainly fatal; it cannot, I think, be too strongly recommended, to proceed to the operation at as early a period as possible ; that is, as soon as the flow of blood through its natural channel is sufficiently obstructed, and the consequent increase of the collateral branches, appears adequate to support the vitality of the limb.

It is pleasing to reflect, because it shews the favourable progress of this branch of Surgery, that though Cheselden trusted so little to the power of carrying on the circulation

by the anastomosing branches, that he had difficulty in believing the event when it had taken place in the arm; the judicious boldness of Mr. Abernethy has clearly demonstrated, that the operation may be performed with safety in any situation, where anatomy enables us to reach a healthy portion of the artery.

That the supply of blood was adequate to the proper nutriment of the limb, was in this case evident, from the day of the operation, although the artery passed too near the surface of the tumour, and its pulsation downwards was too easily traced, to admit a supposition that the circulation through it was much impeded. The absence of extensive œdema confirms this opinion, and is easily accounted for, by the sac being almost entirely external to the femoral vein.

There was much less symptomatic fever than could have been expected; especially, as the temperature of the air in the four or five first days after the operation, amounted to 70° in the shade.

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CASE
OF
GUNSHOT WOUND.

ON the morning of the nineteenth of April 1812, I was desired to visit Richard Taylor at Middleton, who had received a wound the preceding evening from a musket, in a riotous attempt to enter a weaving mill, belonging to Messrs. Burton of that place. I found him upon the floor of a room in which a man lay dead, and into which there was a continual influx of people, whom curiosity or interest led to the scene. The ball which was shot from the windows, entered the groin, about the third of an inch from Poupert's ligament, near the middle of the base of the triangular cavity, formed by the adductor and sartorius muscles; and exactly over the femoral artery, where it passes out of the pelvis. A considerable hæmorrhage took place immediately after the accident. The patient had suffered much pain, had slept little, was

thirsty, and on being raised this morning, there was a return of the hæmorrhage, to the amount, it was supposed, of eight ounces. The limb was moderately warm, the pain had now subsided. The discoloration and tension extended to the hip. The abdomen was soft and easy; his pulse weak and frequent; tongue dry; skin warm.

I withdrew a tent which had been introduced into the wound, but no blood followed. My little finger passed readily into the opening. I found that the ball had entered the sheath in which the femoral artery and vein lie imbedded. The coats of the artery were laid bare on its interior surface, where it is contiguous to the femoral vein, and after passing in contact with, and behind the vessel, the ball appeared to descend towards the knee.

When I withdrew my finger, about two ounces of venous blood trickled from the wound. It ceased, and after waiting sometime for its re-appearance, I contented myself with ordering rest, diluents, and a purgative mixture. A cold lotion was constantly applied upon the

part; and Mr. Scholfield, the Surgeon of the place, was kind enough to superintend my patient, to watch the return of the hæmorrhage, and, if necessary, to command it by pressure above or below the wound, until I could be sent for. Compresses were of course made ready, and the patient was watched during the night.

The following morning I found him with little pain. He had passed a comfortable night. With straining yesterday to procure a motion, a few ounces of dark coloured blood trickled down the thigh into the bed pan. He had a second stool in the evening, without the bleeding. His water was high coloured; his pulse strong and quick; skin hot; tongue dry, and covered with a white fur; thirst troublesome. To take toast and water, cold tea, gruel, &c.

As the patient was some miles from home, and as his friends were anxious to remove him; I applied a spica bandage around the part, wet with a solution of acetite of lead. He was conveyed in a sling, with an attendant at his side, who was directed to apply pressure,

if necessary. The journey did not fatigue him. His pulse in the evening had fallen; his thirst and heat were abated.

On the third day he remained easy; but he was confined in a small room, in which were two other beds, with a brother in the last stage of consumption. His family appeared to have neither power nor inclination to keep from him crowds of idle people, who came to visit him, and who agitated and disturbed him with reports of his apprehension; and as it was probable that the hæmorrhage would return when the eschars began to separate, I determined to have him removed to my own premises, where my assistants could watch him, and where I could better attend to him than at a distance.

On the fourth day he was much in the same state. He had little pain. His skin and tongue were moist; his pulse soft. There was very little discharge, for the aperture was lined with a slough; the abdomen was easy, and he could bear considerable pressure in the neighbourhood of the wound. On the evening of this day he was removed, but his journey

fatigued him. He was starved, and his extremities continued cold during the early part of the night. To have the thigh fomented twice a day, and imbedded in a large poultice, and to take porter. A dose of calomel was given this morning.

On the sixth day he was seized with convulsive twitchings of the arms, his pulse intermitted, his countenance was depressed and anxious, his breathing laborious, and the extremities cold. These symptoms were removed by thirty drops of laudanum, and the same quantity of æther, mixed with warm wine. Bottles of hot water were applied to his feet, and he passed the night comfortably.

Seventh day—His bowels during the last three days have been obstinately costive, a clyster was therefore injected, which procured a large, dark coloured, fœtid motion.

Eighth day---His appetite is again good. The wound discharges plentifully; pulse regular; the swelling around the hip nearly subsided. Takes wine, and porter.

Tenth day---A portion of the slough separated from within the wound, and a few drops of arterial blood followed. The patient was able to move the thigh, but the greatest caution was enjoined. He continued to eat and sleep well; stools were procured by clysters.

By the end of the third week the opening was nearly closed; but a probe could yet be introduced several inches into the substance of the thigh, through the centre of the granulating surface. The artery communicated its pulsation so strongly to the instrument, when thus introduced, as to be visible at some distance from the bed. There was yet a considerable discharge, but with little pain. Though the ball passed through eight folds of clothing, there has been very little irritation excited, and the patient can move his thigh in every direction, with great freedom.

At the expiration of a month, he walked home; the wound had not yet healed, but the discharge was trifling, and the orifice soon afterwards closed. In July it re-opened, and a few threads of clothing were discharged,

when it again healed. He has worked at his trade as a weaver, and is now employed in the hay. The centre of the cicatrix appears exactly over the artery. *

As the ball passed in contiguity with, and laid bare the arterial coats; it is almost impossible that they could avoid being included in the eschar when it separated. The case I have related would appear, therefore an additional proof, that an artery may carry on the circulation, though its external coats are destroyed; and that aneurism is not likely to take place, unless there is a previous and positive disease in the vessel. †

I have already mentioned, that the propelled body passed between the femoral artery and vein, where they lie in contact with each other. It is not easy to conceive, how the latter vessel could escape injury; and as the blood was venous, as it flowed in a copious

* Since this case was drawn out, the wound has twice re-opened, and a quantity of clothing has been discharged each time. The ball remains, but produces no uneasiness.

† Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge. vol. i. p. 144.

stream, and as its quantity was also considerable, it appears at least probable, that the vein was the source from whence it originated. But with this view of the case, it may be asked, why I did not tie the wounded vessel? Since, it might be argued, the loss of blood arising from this neglect, produced greater debility than the incision, and the consequent increased suppuration, would have done.

It is to be regretted that we have no data, by which we can ascertain, not only the comparative powers the veins and arteries possess, of carrying on the circulation by collateral branches, but of recovering by natural means from injuries inflicted on them. *

* Dr. Jones' very ingenious and instructive work on hæmorrhage does not, if my memory prove correct, extend thus far—several facts might, I think, be adduced, which render it probable that a wounded vein would sooner unite by adhesion; and certainly it might be more easily rendered impervious, than a wounded artery of the same calibre. But as all hope of adhesion, in the generality of gun-shot wounds must be futile; is it not likely, when re-action in the neighbourhood of the deadened parts took place, that lymph was effused; into which vessels would shoot, and render the vein impervious: and that a further hæmorrhage was in the mean time prevented, by the coagulation of the extravasated blood?

This knowledge, would have enabled me to limit with more precision, the line of practice to be adopted. As it was, I determined to be regulated by the patient's strength, and if the bleeding had returned after the evening on which his pulse fell, I should not have hesitated to pursue the proper means of securing the wounded vessel. But the recurrence of the hæmorrhage, from the sloughing of the artery, appeared so inevitable, that it was for some time matter of serious doubt, whether I ought not to cut down upon, and secure it, above Poupart's ligament; and thereby prevent what appeared almost a certain evil, rather than remedy it when it took place. Whether I ought not in fact, to choose my own time, rather than be roused perhaps in the night, and incur the hazard of a further reduction in the patient's strength, by the loss of more blood, or have his life destroyed by the temporary sleep of the attendants? Even now I am not certain that it would not have been the best practice. At any rate I should, I hope, have stood excused by my professional

brethren, had I adopted it, especially as my own experience led me to expect little injury to the affected limb. I forbore however, because I was unwilling to destroy even a small chance of the artery remaining entire; and because I would not bring upon my patient, as it were, two diseases, when either was sufficient to contend with. For though the internal iliac might be adequate to the support of the limb, yet the eschars would have been much longer in falling off, in consequence of the decreased power in the part. The confinement of my patient would, therefore, have been protracted, his general health would have suffered, and a train of evils might be expected, which would terminate, perhaps, in death.

Besides, I was acquainted with no instance, where both the femoral artery and vein had been rendered suddenly impervious in the human subject, above the junction of the saphena vein. It would not therefore be matter of surprise, if I had been willing to avoid the additional anxiety of an operation, to which there was no

precedent, and which might possibly be unnecessary ; but it was not a willingness to avoid the operation which actuated me, for I should not have hesitated to perform it, had the hæmorrhage continued from the vein, or had the shew of blood which followed the separation of the eschar, been at all increased, and increased in such a way, as to prove that it originated from either of the vessels in question. In short, I was anxious to operate, but equally anxious that the operation should be proved to be necessary.

Mr. John Bell says “it is because Gun-shot wounds are bruised, that they gangrene ; it is because they do not bleed at first, that their after bleeding is so dangerous ; it is because they are deep, penetrating and bruised, that they appear malignant, and do not easily heal.” * “Their peculiar nature draws after it a peculiar practice ;” † and in a former page he directs us to “scarify the vessels that they may bleed ;” to “enlarge the wound, that when

* Discourses on the Nature and Cure of Wounds, p. 175.

† Ibid. p. 175.

it inflames it may have room to swell," and "your incisions," he adds, "while they change in some degree, the nature of the wound, enable you to see the bottom, to take up the bleeding arteries, and to extract the ball or fractured bones."

I shall not, I hope, be thought wanting in respect to this very pleasing writer, if I venture to differ in opinion on the utility of this practice. I can, for instance, see little use in "scarifying the pent up vessels that they may bleed," because the only possible good such practice can produce, is the prevention of inflammation; which Mr. John Bell admits, seldom runs to any dangerous height. *

It is in fact very much less than we could expect; for the parts are deadened, and eschars are formed, as eschars are formed by the application of a caustic. In either case, comparatively little inflammation follows. It must also be remembered, that the separation of these eschars is a living process, and is effected by the action

* Discourses on the Nature and Cure of Wounds, p. 191.

of the absorbent vessels. Scarifications, therefore, will not, “quicken the falling off of the bruised parts.”

It is true that “scarifying deeply enables you to reach the bleeding arteries”; but even this advantage, may as it appears to me, be purchased at too high a price, and the practice should not be admitted without considerable exceptions.

The artery may be wounded where it is so deeply seated, that it would require a very large incision to reach it; whereas by tying it above the wounded part, where it is superficial, the hæmorrhage is effectually suppressed, and much time and strength will be saved by the comparatively small, suppurating sore. *

* A case which it appears useful to mention is related by Mr. Gooch, in which one of the arteries was opened about the middle of the leg. The bleeding was stopped from time to time by various methods, but at last it was thought advisable to amputate the limb. Mr. G. proposed to “cut out two or three inches of the fibula, and so secure the artery.”

This practice of Mr. Gooch’s has been sanctioned by one of the best provincial Surgeons in this country, and the case was attended with complete success. (*See Mr. Heys’ very important practical observations.*) I am anxious to pay every respect to the opinions of this excellent Surgeon; but I cannot help remarking that I should prefer tying

Again, if the bleeding have been profuse, the blood, driven into the interstices of the muscles, will create much confusion, especially if it be secondary, and if there have been previous inflammation. But this is not all, for the whole of this open wound must

the artery in the ham, or on the inside of the sartorius muscle, in a similar case, because experience justifies us in asserting, that the collateral branches would be fully adequate to the support of the limb. The irritation following this operation, being less serious than from a wound large enough to enable us to remove several inches of the fibula, the injury of the limb would be less considerable, the suppuration less in quantity, and its duration shorter, than after the removal of the bone: and lastly, no deposition of bony matter would take place, until the outward wound had healed, when the parts would have become so quiescent, and the increased action, which generally accompanies, and always favours, the formation of new bone, so nearly subsided, as to render its reunion uncertain. It ought perhaps to be observed, that Gooch had so little expectation of tying large arteries with impunity, that he says "when the brachial or femoral artery is wounded, though the patient should not perish by hæmorrhage, the limb must soon die for want of nourishment." "In such case the progress towards putrefaction will be very swift. It therefore very generally requires amputation." (*Gooch's Surgery*, vol. 1. p. 77.) The justification of, and excuse for Mr. G's practice, is contained in this sentence; it is the want of knowledge in the power of carrying on the circulation by collateral branches which led to the proposition; but with our present confidence in this power, no sufficient excuse can, I presume, be urged, for continuing to propose a dangerous operation, where one comparatively trifling will answer equally well. Mr. Hey will, I am sure, excuse the freedom of these remarks.

ulcerate, and the artery, with the ligature around it, would therefore lie imbedded in matter; the ulceration of the surrounding parts would extend to it, and reiterated hæmorrhage be likely to ensue; attended each time with more difficulty, more danger, and more confusion. Besides, if the maxim be true, that "bruised parts inflame," and if the danger of hæmorrhage chiefly arise from this inflammation, it would appear to follow, *cæteris paribus*, that to tie the artery where it is already injured, must be less safe than the practice I have mentioned.

Mr. John Bell says, "none but those Surgeons who have seen few gun-shot wounds, talk of reducing this piece of surgery, to the common principles which regulate our practice in other wounds." * It may with at least equal truth be answered, no one will accuse Mr. J. Bell of this error, when he directs us to scarify the wound "merely because it is a gun-shot wound." And when he asserts that "every man is too

* Discourses, p. 185.

apt to represent his own conceits as the true principles of surgery," * there appears more justice in the remark, than propriety in its application to John Hunter.

The doctrine of scarifying "gun-shot wounds with fractured bones," should be confined within narrow limits. When we recollect that the Hunterian museum contains a preparation where the bone lived, though so extensively injured, that the medullary canal was turned outwards; we shall see that these bodies possess powers of life beyond our expectation. They sometimes continue to live when the soft parts slough away. It is only then, where the injury is so great as to render re-union impossible, that such advice ought to be given; for if there be only a distant hope that the detached portions of bone may live, it would appear improper to remove them; since the formation of new bone, is, in any case, a tedious process, and is rendered much more uncertain, by an outward wound. This fact should render us

* Discourses, p. 186.

careful to save every portion of bone, and to recollect that "though the splinters are loose and seem to be lost, yet they are still attached by their membranes, and may live and be taken into the knot of callus which restores the bone." *

To dilate gun-shot wounds for "extracting the ball" is still more objectionable; since, in many cases, we must commit greater injury than is already inflicted.

CASES

OF

CONGENITAL UMBILICAL HERNIA.

September 27, 1810. I attended a poor woman, who was far advanced in pregnancy, and in the last stage of consumption. On the evening of this day she had slight pains, which denoted the approach of labour.

On the 28th. she had risen to make water; a pain seized her, and the child was born:

* Discourses, p. 197.

the funis was torn, and it fell upon the floor.

I was sent for, and on uncovering the infant, was surprised to find a large tumour, contained within the funis. It was firm, inelastic and perfectly incompressible. It hung pendulous upon the thighs, and reached to the knee; appeared circumscribed and separated from the cavity of the abdomen. The cellular substance which constitutes the greatest part of the chord, and in which the tumour was contained, was condensed into distinct layers, between each of which a quantity of serum was effused, giving it the appearance of a large blister. The common parietes of the abdomen were so disproportionate to the contained viscera, that the dilated funis spread out, so as to form a considerable part of the covering.

On cautiously dissecting through the layers of cellular membrane which formed the covering of the tumour, I found the liver of the child, adhering by firm ligamentous bands, to the process of the peritoneum which formed the inner surface of the sac. The adhesions were cautiously divided, the liver was returned

into the general cavity, and a ligature tied round what may be called the hernial sac, as nearly as possible to the abdomen.

The abdomen was now very tense, and the struggles of the child so violent, that the ligature gave way, and the liver, with a portion of the small intestines, became again protruded. On their being reduced a second time, the child died.

CASE.

In the following year, I was called to a woman who was just delivered of a fine child. The midwife on examining the funis, was surprised to find that it had no pulsation, and appeared much longer than usual. She elevated the clothes to examine it more particularly, and found the intestines of the child, lying upon the bed. The opening through which they had escaped, and which was produced by the pain which expelled the child, was large enough to admit a common sized apple. The dilated funis formed at least one third of the parietes of the abdomen, and the whole of the small intestines and the stomach

lay out of the wound. The intestines and omentum were of a dark coffee colour, and the slightest touch produced a rupture of the vessels which ramified upon them. After dividing the funis, beyond the dilated part, I had the child laid upon its back, and having, with great care and caution, succeeded in replacing the bowels, I passed a needle through the funis, with the intention of bringing the sides of the lacerated opening into contact, but the stitches were torn out by the first struggle of the child, and before I could again replace the bowels, it expired.

Cases of this kind of malformation, or, if they may be so called, of umbilical hernia in the foetus, occasionally occur. Ruysch illustrates one of them by a rude engraving, and relates another, where the peristaltic motion of the intestines could be distinguished through the peritoneum, for the greater part of the skin and muscles of the abdomen were wanting. Other instances are related by Mr. Hey; * and Dr. Hamilton's practice

* Hey's Surgical Observations.

furnishes him with an opportunity of seeing two cases annually. *

Where the protruded portion is small, and the integuments of the abdomen are not materially deficient, the hernia may be returned, and the sides of the opening will coalesce. Desault † recommends us to obliterate the dilated chord by a ligature; this practice appears much simpler than the twisted suture, recommended by Dr. Hamilton, and should, I think, be generally preferred, where compression does not appear adequate to retain the bowel in the abdominal cavity. But when the hernia is large, the chance of success appears so small that it will scarcely justify the Surgeon, in inflicting pain on the infant. Though death appeared inevitable in both the cases, which I have related, it was evidently hastened in the former, and scarcely protracted in the latter, by the means which were adopted to prevent it.

* Cooper on Hernia, Part II.

† Parisian Journal.

CASE.

June 23rd. 1812,—I was requested to visit T. A. of R* * * who was suffering from acute pain at the posterior part of the head, extending from the transverse ridge of the occipital bone, to the first or second vertebræ of the neck. The man had been occasionally troubled with similar attacks during the last seven years, but in the intervals had enjoyed good health. Since the last attack, he has found the neck somewhat weaker than at any former period, and illustrated his meaning, by stating that when he attempted to carry a load of flour, the neck appeared to give way under it, and tremble; he compared the sensation to the motion of chips upon each other. The same feelings were not produced by carrying burdens upon the head. I ordered eight leeches to the neck, and a purging mixture; and directed the head to be kept cool, and the feet to be immersed in hot water.

June 24th.—Not at all better, though his bowels have been well opened, and the leeches bled freely. The patient finds relief only by

moving the atlas upon the dentata, his head is therefore in a constant rotatory motion; and his sufferings are so great, that though apparently possessed of a strong mind, he gives utterance to his feelings in a constant groan. His pulse is soft, his pupils dilated, no tightness within the cranium, nor is light at all offensive. He had six more leeches applied, which bled freely, and afterwards a large blister to the nape of the neck. The head was shaved, and cold stupes were constantly applied to the back of the cranium. To continue his mixture.

The following day (25th.) Pain very violent. His pulse is full, but not strong nor quick. Tongue furred; little thirst; no shiverings nor sickness. I took ten ounces of blood from the arm; he was immediately relieved, but the pain returned in half an hour, and was if any thing more acute. In the evening I saw him again; his pulse had fallen; his pain was equally violent, but not so regular; bowels open; no soreness nor swelling in the head or neck, on the contrary he frequently grasps the muscles, and experiences some relief from it;

the rotatory motion is continued. He seems scarcely able to lift his head from the pillow; on rising, it shakes as if palsied.

Appl. Empl. *Lyttæ occipit.*

R. Ext. *Hyosciam.* gr. v.

Calomel. gr. iij. M. ft. Pil. ij. Capt. hora somni.

R. Aq. *Ammon. acet.* ℥ss.

Tinct. Digitalis gtt. vjij.

Sp. *Æther. Nitric.* gtt. xxx.

Aq. distillat. ℥j. M. Capt. 4ta. quaque hora.

26th.—Had occasional slumbers in the night, but was awoke by the pain, which at intervals was as violent as yesterday. He had a blister applied on each side the neck.

27th.—Little alteration. The pills have again procured some sleep, and the intervals of ease are more distinct.

R. *Tinct. Gum. Guaiac.* gtt. xxx.

Ov. *Vitell.* q. s. Misc. et add.

Sp. *Æther. Nitric.* gtt. xxx.

Tinct. Humuli. gtt. xxx.

Aq. puræ ℥j. M. ft. Haust. ter die sumendus.


28th.—The pain returns about every half hour, and is very acute. The patient in other respects has experienced no change. His bowels were not very open, and a purgative bolus was exhibited.

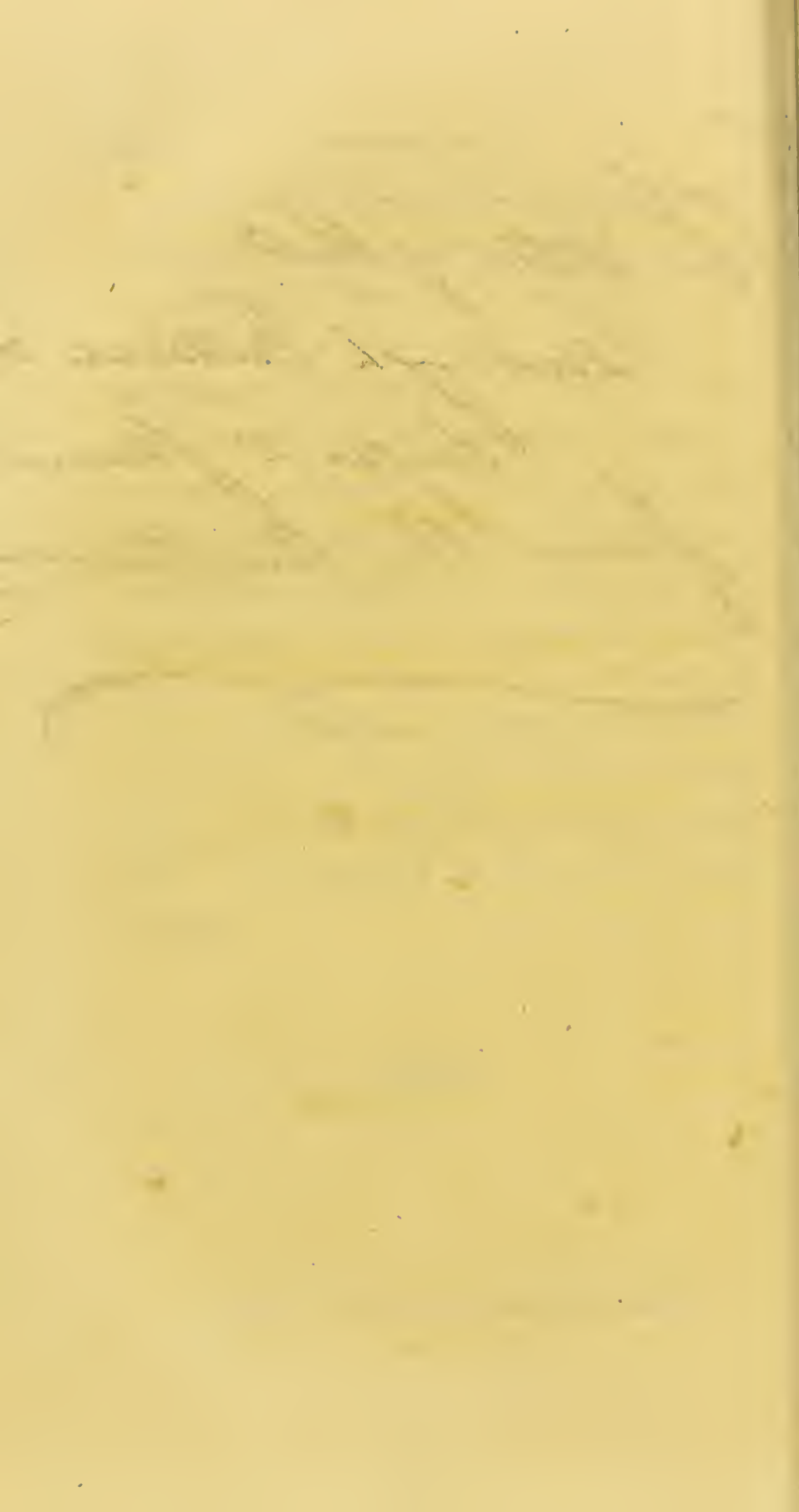
A mixture of Fowler's mineral solution was intended to be given in the morning, but on the afternoon of this day, a violent attack of pain seized him; he rose up suddenly; his face became dark coloured; his head and neck swollen; and in a few moments he expired.

I could not prevail on his friends to have the body examined; it is not, therefore, easy to determine, whether the symptoms I have narrated, were the effect of inflammation in the theca which lines the vertebral column; of disease in the ligament which binds the tooth-like process of the second vertebra to the first; or whether there existed disease in the bone. I am inclined to the first of these opinions.

FINIS.

7
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1828.

PREFACE.

THE following sheets may be considered a practical commentary on the first part of the circular from the army medical department, under date 1st of June 1824, namely, "Rules to be observed on the Examination of a Recruit." If the Author has been successful in explaining to young medical officers the nature of the duty of examining recruits, and illustrating the rules and usages of the service in that respect, his design is accomplished.

The remarks on the feigned disabilities of soldiers are intended to convey some information on a subject, the knowledge of which cannot be thoroughly acquired without a long acquaintance with military hospitals, the habit of intimately observing soldiers during health, and of treating them under disease. The Author is well aware that this at-

tempt is very imperfect, but he hopes it may be useful in calling forth interesting facts and valuable observations from others. He is anxious to impress on the minds of young medical officers the propriety and utility of devoting much patient attention to this branch of their duty. Dr. Cheyne, physician to the medical division of the general military hospital of this garrison, whose high talents and great experience are universally acknowledged, has the candour to admit, that "to distinguish between sterling and counterfeit disease is one of the most difficult duties he has to perform*."

The Reader will perceive that it has been deemed proper in a few instances to suppress the names of individuals and the numbers of regiments.

To account for some anachronisms which occur in these pages, it is only necessary to observe, that it was at first supposed the work would have been published last December or January.

The Author has been under particular obliga-

* Letter to Dr. Renny by Dr. Cheyne, Dublin Hospital Reports, vol. iv.

tions to his friend Dr. Thomas Brown, Surgeon to the Forces, for many important suggestions. Long and varied experience, habits of close observation, and a vigorous understanding, render hints from him peculiarly valuable.

The writer embraces this opportunity to return his best thanks to Dr. Davies, Surgeon to the Honourable East India Company's dépôt, Chatham, for communicating several interesting cases, and some judicious observations derived from his extensive experience in the feigned disabilities of young soldiers. An establishment like the Company's dépôt requires the most assiduous attention on the part of the medical department, to prevent the practice of malingering from becoming, what Dr. Cheyne says it is in some corps, "an intolerable nuisance;" and in his endeavours to abate such a nuisance in each successive levy, Dr. Davies has been remarkably successful.

H. M.

Recruiting Dépôt (Centre District), Dublin,
March 20, 1827.

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CORRIGENDA.

Page 34, line 21 from the top, *for* Mathews, *read* Matthews.

48, 19 *for* Kuckoff, *read* Kirckhoff.

65, 25 *omit*, at the recommendation of a
medical board held at Fort Pitt.

93, 13 *for* frequently, *read* frequent.

117, 20 *for* managment, *read* management.

149, 16 *for* an hotel, *read* a hotel.

207, Note, *for* both testicles had not descended, *read* neither
of the testicles had descended.

HINTS

TO

YOUNG MEDICAL OFFICERS OF THE ARMY.

OFFICIAL DOCUMENTS.

No. I.

(*Circular.*)

Horse Guards, 24th August, 1815.

The Commander in Chief, having adverted to the numerous instances which have recently occurred of the rejection of recruits on final inspection, has commanded me to call your attention, and that of the surgeon of the district, to this important circumstance, as it has occasioned not only a very serious and unnecessary expense to the public, but has been attended with infinite trouble and inconvenience to the service. His Royal Highness has directed me to intimate to you at the same time, that I am to enjoin a strict attention to the instructions under which you are acting, being the best means of avoiding the evil above referred to; that in the present state of affairs it is not desirable that any man should be received, who is not perfectly eligible for the service, and that men with respect to the soundness of whose health or constitution there is any doubt should not be enlisted, as it is not to be ex-

pected that men of this description can be equal to the fatigue and exertion inseparable from a soldier's life.

You will be pleased to apprise the officers superintending subdivisions of the communication now made to you, and inform them, that the Commander in Chief expects they will conform to the instructions therein contained.

I have, &c.

(Signed) R. DARLING, D. A. G.

The Inspecting Field Officer,
— District.

P. S. It may be naturally expected, that in consequence of the discharge of a large portion of seamen from his Majesty's fleet, many persons of that description will offer themselves to the parties as recruits; and I am accordingly directed by the Commander in Chief, that immediate cautionary orders may be given to the subdivisional officers on this head, and that you will not fail in every instance to reject recruits of the above class, who may be brought for your immediate inspection.

No. II.

(Circular, No. 354.)

War Office, 29th April, 1817.

SIR;

It having been found that in many cases recruits for the regular army, who have been passed by military medical officers, have; when brought for final inspection to the head quarters of the recruiting district in which the men enlisted, been rejected by the district surgeons as unfit for his Majesty's service, on account of disabilities, the existence of which it was the duty of the medical officer who first examined the recruit to have ascer-

tained—I am to apprise you, that his Royal Highness the Prince Regent has been pleased, in the name and on behalf of his Majesty, to direct, that in all such cases the expense, which may have been incurred on account of the recruits, shall be charged against the medical officer by whom they were passed in the first instance; and you will make the necessary communication to the surgeon and assistant surgeon of the regiment under your command accordingly.

I have, &c.

(Signed) PALMERSTON.

Officer commanding — Regiment.

No. III.

RECRUITING DEPARTMENT.

(*Circular Memorandum.*)

Horse Guards, February 1818.

With the view of guarding against the admission of exceptionable characters into the service, the Commander in Chief is pleased to prohibit the enlistment as a recruit of any man who shall be found to bear the mark of having undergone corporal punishment.

(Signed) R. DARLING, D. A. G.

No. IV.

RECRUITING DEPARTMENT.

Horse Guards, 30th January, 1820.

MY DEAR LORD;

It is necessary that I should apprise you that many of the recruits, who are sent from Ireland

for foreign service, are, upon ultimate inspection in this country, found to have old sores upon their legs. Your lordship will readily perceive how important it is that the staff officers, charged with the inspection of recruits, should take every possible precaution to prevent the admission into the service at this time of any man who may be likely to become useless in the course of a few years, either from the breaking out of old sores, or the recurrence of any latent constitutional complaint. It is indeed so essential that the medical officers in particular should observe the utmost circumspection in the discharge of this duty, that I must request your lordship will obtain Sir George Beckwith's authority to convey fresh injunctions to them, either in the shape of a general order or a circular letter, whichever may be most approved by him.

It is by no means meant to aim any general imputation of negligence at those officers, but to freshen their vigilance, a measure, which may be occasionally useful even when positive blame is not laid, and which I mean to take the present opportunity of resorting to likewise, with reference to recruiting districts of this country.

I have, &c.

(Signed) HARRY CALVERT, A. G.

Major General Lord Aylmer,
Adjutant General to the Forces in Ireland.

No. V.

Army Medical Department,
24th August, 1821.

SIR;

In reference to various complaints that have been made relative to the rejection of recruits at their final examinations, I have deemed it advisable to draw up a few precise rules for the better guidance of medical offi-

cers in this part of their duty. It will be seen that these directions go to many particulars, which, under circumstances where a great military force was required, it might not perhaps be expedient to view as positive causes of disability; but in the present state of the military establishment of the country it may be supposed, that even with the closest adherence to these rules, a sufficient supply of recruits may be obtained. I beg leave to submit the same for the consideration of his Royal Highness the Commander in Chief, and to state, that, if approved of by his Royal Highness, it may be highly useful to have them circulated among all military officers employed on the recruiting service, that they may be aware of the nature of the examination, which the recruit is to undergo.

I have, &c.

(Signed) J. M'GRIGOR, D.G.

To the Adjutant General.

Rules to be observed by Medical Officers in the Examination of Recruits.

1. No recruit to be deemed fit for service labouring under any acute or chronic disease, for which medical treatment is required at the time of examination.

2. Labouring under old cutaneous affections of the head or body, whatever their specific character may be.

3. Defect of eyesight, or morbid affections of the eyelids, including specks on cornea, in whatever situation, as showing former disease; immobility, or irregularity of iris; morbid adhesions thereof; opacities of the lens; fistula lachrymalis.

4. Deafness, or purulent discharge from the ear. Stammering, or defect of speech, which may render him unable to do the duty of a sentinel.

5. Deficiency of many teeth, and particularly if accompanied with an unsound state of the remainder.

6. Narrow, flat chest; protruded or depressed sternum; badly united fractures of the clavicle or acromion, or any other bones; general appearance of pulmonic disease, particularly if combined with a strumous habit; marks of repeated cupping or blistering.

7. Visceral disease of the abdomen, particularly if accompanied with enlargement of any particular viscus; marasmus; hernia, or preternatural enlargement of the ring.

8. Varicose state of testicles or chord; deficiency or enlargement of the testicles; fistula in perineo, or in ano; extensive hemorrhoids.

9. Morbid enlargement of bones or joints; malformation or loss of toes or fingers; flat feet; nodes; contraction or stiffness of joints.

10. Varicose veins of legs; old cicatrices adherent to the bone, or which may be likely to break out afresh on long continued exertion.

11. Marks of punishment.

12. Glandular swellings of groin or neck, or general appearance of defect of health.

Note.—Whenever a recruit does not bear the mark of having had the small-pox or cow-pox, it is the duty of the examining surgeon to vaccinate him at the first opportunity.

J. M'GRIGOR.

No. VI.

Circular Letter addressed by the Adjutant General to the Inspecting Field Officers of Recruiting Districts.

Horse Guards, 27th August, 1821.

It appearing that many objectionable recruits have been passed (particularly in late instances), I am to express to you the Commander in Chief's desire, that the

very utmost circumspection may henceforth be observed in the inspection of such recruits as shall be enlisted in the district of which you have charge ; and that none may be received, under the present reduced circumstances of the army, that shall not, in point of general health, shape, and appearance, afford the surest promise of becoming an active, robust, and well-looking soldier.

His Royal Highness is aware that the orders, respecting size and apparent blemishes, have not been intentionally disregarded ; but is nevertheless persuaded, that considerable looseness has lately been prevalent, both in the surgical and in the military inspections ; and that, although the above specified points may have been so far attended to as to avoid an absolute infringement of the existing regulations, subordinate but very essential points have been but too frequently overlooked.

It cannot but be obvious to you, that in the future conduct of these inspections, much must necessarily be left to your judgment and discretion, as well as to those of the district surgeon : and that by great care, and the due application of that judgment, you will be able effectually to meet his Royal Highness's views, without being bound by positive rules, which could scarcely be framed so as to meet the objects to which your future attention is now so earnestly directed.

I have, &c.

H. TORRENS,

Adjutant General.

No. VII.

Circular Letter addressed by the Deputy Adjutant General to the Inspecting Field Officers of Recruiting Districts.

Horse Guards, 31st August, 1821.

Referring to the adjutant general's circular letter of the 27th instant, I have now the honour to annex, by the Commander in Chief's command, a code of additional rules, which the director general of hospitals has suggested, for the further guidance of the military and medical officers charged with the inspection of recruits; and to express his Royal Highness's desire, that you will cause the same to be strictly adhered to throughout the recruiting district under your orders.

I have, &c.

JOHN MACDONALD,

Deputy Adjutant General.

Memorandum for the guidance of Medical Officers, and others who are called upon to examine Recruits for the Army, and for the service of the Honourable East India Company.

The heavy expenses incurred by the Government, from the frequent rejection of recruits intermediately approved, as well as from the introduction to the army of improper and ineligible men, have rendered it necessary to give, in addition to the instructions relative to the passing of recruits, at page 8 of the regulations for regimental hospitals, the preceding more precise rules for conducting this important part of a medical officer's duty.

No. VIII.

RECRUITING DEPARTMENT.

(Circular.)

Horse Guards, 3d September, 1821.

SIR;

By the Commander in Chief's desire I have the honour herewith to transmit for your information and guidance, copies of instructions which have been issued through this department, with the view of ensuring to the service a better description of recruits under the present circumstances of the army.

I have, &c.

(Signed) J. MACDONALD, D. A. G.

The Officer commanding
—— Regiment.

No. IX.

Circular Address to Medical Officers by the Director General.

The director general desires that the directions herewith transmitted, supplementary to those in page 8 of the instructions for regimental surgeons, may be most rigidly adhered to under the present circumstances of the army; and he cautions medical officers, in the execution of the duty of passing recruits for his Majesty's service, that they do not allow themselves to swerve from the fulfilment of their duty according to these regulations, by any representation

that may be made to them, either by the parties interested or from any other quarter*.

15th October, 1821.

Army Medical Department.

* The nature of the interference alluded to by the Director General's circular, will appear by the following letter from the Horse Guards.

Horse Guards, 27th January, 1807.

SIR;

Having submitted your letter of the 24th, with its enclosures, to the Commander in Chief, I am directed to signify to you, that in consequence of the report of surgeon ——— of the Dublin recruiting depot, stating as follows, *viz.*

“As to James Reilly, I did absolutely reject him for having an enlarged leg, but at the interposition of Lieutenant Col. Belson, the commanding officer of the second battalion (who said he would be responsible that he would not be rejected if he went to England), I did consent to pass him under these circumstances.” His Royal Highness is pleased to command, that Lieutenant Col. Belson of the 2d batt. 28th foot, be charged with the bounty paid to James Reilly, as it cannot be admitted against the Public; to which effect you will be pleased to give the necessary directions, and to see that the amount be credited to Government in the event of its having been already charged.

I am further to state, that the Commander in Chief could not refrain from remarking the extreme impropriety of the surgeon permitting himself to be influenced in a point of duty by the advice of a person, who could not be considered competent to give an opinion on a professional case; and you will be pleased to signify to Mr. ——— his Royal Highness's expectation, that he will not suffer a like irregularity to occur on a future occasion.

I have, &c.

(Signed) W WYNYARD, D. A. G.

To the Inspector General,
&c. &c. &c.

No. X.

(Circular, P. No. 462.)

War Office, 11th March, 1822.

SIR ;

Referring to the circular No. 354, dated 29th of April 1817, I have the honour to acquaint you, that his Majesty has been graciously pleased to direct, that the regulations therein laid down, under which the surgeon passing in the first instance a recruit, who may be subsequently rejected, is held liable to defray the expenses incurred for each recruit, shall, from the 25th instant inclusive, be rescinded.

I have, &c.

(Signed) PALMERSTON.

Officer commanding
——— Regiment.

No. XI.

RECRUITING DEPARTMENT.

(General Order.)

Horse Guards, 1st October, 1823.

Strong and general complaints have been made of the weakness and inefficiency of the class of recruits usually enlisted under the denomination of *growing lads*, and the Commander in Chief desires that the most pointed attention may be given to the inspection of recruits of this class by the inspecting field officers and surgeons concerned. Nothing in point of force can be added to the repeated orders already issued on this subject, and particularly to those contained in the circular of the 27th August 1821. But his Royal Highness will not fail to

notice in the strongest and most effectual manner any inattention or disregard to the instructions therein contained, with respect to *shape, activity, and stamina*.

By command of his Royal Highness
the Commander in Chief,

(Signed) H. TORRENS,
Adj. General.

No. XII.

RECRUITING DEPARTMENT.

(Circular.)

Horse Guards, 1st October, 1823.

SIR ;

As nothing can be more precise, clear, or decided, than the orders which have already from time to time been issued respecting the inspection of recruits, I have received the Commander in Chief's commands upon this occasion, simply to convey to you his expectation, that the orders hereafter will be most punctually observed, and to express to you his Royal Highness's determination to enforce them to the most scrupulous observance ; and I am especially commanded to assure you, that whenever, in any future instance, a doubt shall arise as to the perfect competence and eligibility of a recruit, his Royal Highness will invariably cause the expenses attending the enlistment of such a subject to be charged against the inspecting field officer or surgeon, as the case may point out, and without any reference whatever to standard or stature, but judging exclusively from the reports which may be made with respect to strength and muscular capability.

I have, &c.

(Signed) H. TORRENS, A. G.

The Inspecting Field Officer
of ——— District.

No. XIII.

ARMY MEDICAL DEPARTMENT.

(Circular.)

1st June, 1824.

SIR ;

Our attention being particularly directed to the duty of district surgeons, we have thought it expedient, in reference to the returns of recruits lately called for, to draw up the following instructions for your guidance, to which we shall expect the strictest attention ; and from your knowledge and experience of this important branch of the service, we look for much valuable information being in future conveyed by your returns, and the statements which shall accompany them.

Our Instructions are divided into three parts :

I. Those more immediately devoted to the examination of the recruit, supplementary to those enclosed in our circular of 15th October 1821, and to paragraph 4, page 8, of the Book of Instructions for regimental hospitals.

II. Those exhibiting the form of returns required, and registers to be kept at the recruiting stations.

III. Those that bear upon vaccination.

I. Rules to be observed on the examination of a recruit.

1. The recruit being undressed, the examining surgeon is to ascertain that there is no appearance of diseased habit, nor of deformity.

2. That there exist none of the diseases after stated, to a serious extent, nor affecting the efficiency of a recruit ; viz. of the eye or eyelids ; particularly amaurosis, imperfect pupil, immobility or irregularity of the iris, morbid action thereof, opacities of the lens, disease of the cornea, old granular lids, fistula lachrymalis.

3. No imperfection of hearing, nor discharge from the ears.

4. That the speech is not imperfect; that there is no stammering; loss of many teeth, particularly of the incisores and canini, and that the teeth are not diseased.

5. That no disease nor loss of the nasal bones exist, so as to affect respiration; no polypus, nor ozoena, &c.

6. No disease of the jaws or palate in any way affecting speech, mastication, or deglutition; fistula or disease of the salivary glands; paralytic affection of the muscles of deglutition.

7. No diseases of the skin, especially of a chronic character, particularly venereal, tinea, &c.

8. No ulcers, nor scars of old ulcers on the legs; disease of the bones or joints, as tumours, enlargements, caries, adhesion together of the skin, muscles, and periosteum of the bones.

9. No contraction of any muscle or tendon, no contraction nor stiffness of joints, no varicose veins of the legs.

10. No marks of punishment, cupping, or blistering.

11. Varicose state of testes or chords, deficiencies or enlargement of testicle, sarcocoele, hydrocele, and all obstinate and incurable diseases of these parts.

12. Incontinence of urine, calculus, gravel, severe cases of stricture, or any other serious disease of the urinary or genital organs.

13. Severe hæmorrhoidal affections, fistula in perineo, in ano, genital or urinary passages.

14. Hernia, or preternatural enlargement of the ring.

15. Phthisis, asthma, hæmoptysis, or any severe disease of the chest; narrow flat chest; protruded or depressed sternum; badly-united fractures of sternum or any other bone; general appearance of pulmonic disease, particularly if combined with a strumous habit.

16. Visceral disease of the abdomen, as indicated by countenance and by examination of the abdomen, more

particularly if accompanied with a cachectic appearance, and the enlargement of any particular viscus, marasmus, atrophy, &c.

17. Glandular swellings of the groin and neck, particularly in a strumous habit, and with general appearance of defect of health.

18. Chronic rheumatism, especially sciatica, gout, scrofula.

19. The loss of any member, as a toe or finger, particularly the index of the right hand, two fingers of the same hand, or two toes; the contraction of any of them; any deformity or weakness of the hands, feet, neck, or head, impeding the motion and use of the arms in riding, walking, &c.

20. Epilepsy; any convulsive affection, general or partial.

21. Insanity, idiocy, weakness of intellect.

With any of these diseases, the recruit to be rejected*.

II. The books required to be kept, and the returns to be transmitted to us, are,

No. 1. Register for Recruits, in which you will daily enter every recruit presented to you for examination.

This book to have distinct columns for,

1. Date of examination.

2. Regiment.

3. Name of recruit at full length.

4. His age.

5. Parish and country.

6. His previous occupation.

7. In a full column, your observations on his general appearance of health, with any remarks that may strike you.

* These instructions may be considered fixed. When men are much required for the service the minimum of height is lowered, and the period of life during which they may be enlisted extended, and vice versa. The supply of recruits is thereby commonly proportioned to the wants of the army, without relaxing the regulations in regard to health or efficiency. Sometimes the recruiting for a corps is totally stopped for a short time.

On every day you examine recruits, you will sign your name in the book after the last examined, and in the same manner you will put your signature to the Vaccination Register, after the last case vaccinated.

No. 2. You will likewise keep a regular Case-Book of Diseases of all of the officers, women, and children, whom you may attend, with daily remarks on the cases, and the medicines prescribed.

This Case-Book or Register you will be supplied with from this office.

No. 3. A Letter Book, to be (with the other books and copies of returns) always kept in good order for our inspection, or that of any officer we may order on the inspecting duty.

No. 4. Vaccination Register, form of which to be described hereafter.

Besides the four books to be kept, you will transmit us the following returns:—

1. The usual Monthly Return of sick, officers, women, and children.

In this return you are to state the number of recruits passed, with the number of women and children who have accompanied them, and the number of these you have vaccinated, stating whether satisfactorily or otherwise.

2. The Annual Sick-Return and Statement, made up to 20th December, after the form of return sent to you (to be regularly entered in the Historical Register), in which, besides the usual detailed information regarding the diseases of the officers, men, women, and children, who have been under your care for the twelve months, we expect much valuable information on the total number of recruits examined by you in the period, and that you will dwell at some length on the very important subjects of vaccination and small-pox, on which diseases we refer you to the valuable works of Professor Thomson, Mr. Moore, and Mr. Cross.

3. Annual Returns to 24th December, of recruits examined by you. Vide accompanying form.

III. Vaccination.

You must be most pointedly particular in this very important part of your duty. Much of the security of vaccination, and exemption of the army from the ravages of small-pox, depend on the medical officers who examine the men recruited into the army, they being as it were sentinels, stationed at a most important pass to examine every entrant into the service.

You are expected to be minute in an extraordinary degree in your examination, as to whether the man has passed through the vaccine or variolous disease in the most satisfactory manner.

We regret to see a laxity in the examinations as to variola and vaccina, and a less correct and satisfactory mode of vaccinating than prevailed soon after the introduction of this process; and we are obliged now to refer to instances of severe punishment for neglect of this duty which took place some years ago, and which will be again had recourse to, should any instance of neglect occur in future.

1. Every district surgeon, and every medical officer, who is so stationed as to be in the way of examining recruits, is expected to be at all times provided with vaccine matter in the most perfect state. If a medical officer has not this from subjects immediately under his care, or from those under the care of practitioners in civil life, he can have it at all times from the Royal Vaccine Institution, by timely application through this department.

2. You will make the most minute examination of a recruit, as to whether he has had small-pox or cow-pox; and you are not always to satisfy yourself with the mark which may be discerned in the arms, or from the detail given by a recruit, but whenever you have the least doubt on

the subject, you will not fail to correspond with the practitioner by whom he states that he has been vaccinated, conveying your letters through this board.

3. Whenever you feel doubts or scruples as to any case you may have yourself vaccinated, you must always communicate with the medical officer of the regiment or depôt to which the man, woman, or child, may have been sent.

4. In your Monthly Return to this office, you are to state the number of recruits passed, with the number of women and children who have accompanied them, and the number of these you have vaccinated, stating whether satisfactorily or otherwise. Vide form annexed.

5. As complaints have reached us, that small-pox has most usually been conveyed to corps by the women and children who have accompanied them; whenever they depart without their having had small-pox or being vaccinated to your satisfaction, you will send a report with them to their regiment or depôt.

You will state these in a note to your Monthly Reports to us, as well as the cases of recruits in the same state.

6. Having ordered that all cases of small pox occurring in any corps, in men, women, or children, be reported to us; if in any case the occurrence of this disease shall be traced to neglect of vaccination by the district or other surgeon who first examined, we will not fail to report such instances to his Royal Highness the Commander in Chief, and we have no doubt this report will draw upon the offender the marks of the highest displeasure of his Royal Highness.

7. Correct and regular Vaccination Register Books are to be kept by you; these should in columns give,

1. The date of vaccination.
2. The name of recruit at length.
3. His parish and country.
4. His age.
5. How many punctures, and in which arm.

6. How many times vaccinated.

7. Time of appearance of the pustules, their number and shape.

8. Result of vaccination.

9. Destination of the persons vaccinated, and the time they left you.

Due attention being paid to these Instructions, we shall look in future for few, if any, cases of small-pox in the army, and for fewer complaints of unfit recruits being admitted into its ranks.

1. When you are in possession of information of a recruit, relative to his liability to particular disease, or attempts at malingering, you will communicate it to the surgeon of his regiment, or of the dépôt he is sent to.

2. Whenever ordered to quit the district or station, you will make up the Annual Report to the 24th of the month preceding, and transmit the same to us, with an invoice of all books, letters, and official papers (giving the dates of each), delivered to your successor.

3. In like manner, when you join a district, you will send up similar returns of all books, papers, and records (with their respective dates), which you have found, or that have been delivered to you.

4. At the same time that you are most scrupulous to pass no recruit into the service, who from any defect is unfit for it; you will, on the other hand, be particularly careful that the service does not suffer from your being imposed upon by simulated diseases and defects. In the execution of this part of your duty, there is scope for the experience you have acquired of the habits and manners of soldiers, and of their tricks.

We have the honour to be, Sir,

Your most obedient Servants,

J. M'GRIGOR.

W. FRANKLIN.

RETURN OF RECRUITS INSPECTED AT —

From December 25, 1823, to December 24, 1824.

Considered fit for Service

Ditto unfit

Total Inspected

CAUSES OF REJECTION.

No.

Insanity
 Idiocy.....
 Epilepsy
 Impediments of Speech
 Stammering
 Loss of Teeth, and extensive Disease of them
 Disease of the Eye (Opaque Cornea, Amaurosis, Closed
 Pupil, &c. to be specified)
 Morbid Affection of the Eyelids (Ditto)
 Hare-lip
 Deafness
 Morbid Affection of the Ears
 Malformation of the Chest (depressed or protruded, to
 be stated)
 Ditto of the Spine (Ditto)
 Fractures (Ditto)
 Dislocations (Ditto)
 Tumours (Ditto)
 Malformation of either Extremity
 Tinea Capitis
 Diseases of the Skin (to be specified)
 Phthisis Pulmonalis
 Asthma

Carried forward

	No.
Brought forward	
Other Diseases of the Lungs (to be specified)	
Diseases of the Class Neuroses (Cullen's Class: to be specified).....	
Disease of the Heart.....	
Diseased Abdominal Viscera	
Scrofula	
Syphilis Consecutiva.....	
Locales (Cullen's Class: to be specified)	
Cicatrices of Ulcers	
Inguinal Hernia, or disposition to, both sides	
Ditto, ditto..... right side	
Ditto, ditto..... left side	
Ventral Hernia	
Enlargement of both Rings.....	
Ditto of right ditto	
Ditto of left ditto	
Diseased right Testicle	
Ditto left ditto	
Disease of the Bladder	
Stricture of the Urethra	
Varicose Veins of either Leg, Ham, or Thighs, throughout the Vena Saphena, on both sides	
Ditto, right leg	
Ditto, left leg	
Varicose Veins of the Spermatic Processes of both sides...	
Ditto..... of right side ...	
Ditto..... of left side ...	
Diseased Bones (to be specified).....	
Total	

A

**STATEMENT OF THE COUNTRIES
AND PREVIOUS OCCUPATIONS OF THE RECRUITS
PASSED IN 1824.**

Previous Occupation.	Passed.						Rejected.						General Total.
	English.	Irish.	Scots.	Welch.	Foreigners.	Total.	English.	Irish.	Scots.	Welch.	Foreigners.	Total.	
Husbandmen	30	40	20	5	5	100							
Tailors	20	30	10	10	5	75							
Shoemakers													
Weavers													
Miners													
Painters and Glaziers													
Tinmen													
Clergymen													
Surgeons													
Clerks													
Musicians													
&c. &c. &c.													
Total	50	70	30	15	10	175							450

I certify, that of the above 175 Recruits, I carefully ascertained that 15 had had Small Pox, that 100 of them had been satisfactorily vaccinated, and that I have vaccinated the remaining 60. Of this number I am satisfied with the vaccination of 30; but after ——— times repeating the process on the others, I do not feel satisfied, and have accordingly sent such statement to the surgeons of their corps, with extracts of their cases from my Vaccination Register.

Of 100 women and 50 children, who accompanied the approved Recruits, I have satisfactorily vaccinated 80 women and 40 children; and I have sent the extracts from my Vaccination Register, of the 20 women and 10 children, to the corps they went to.

A. B. District Surgeon.

No. XIV.

RECRUITING DEPARTMENT.

(Circular.)

Horse Guards, 14th August, 1824.

SIR ;

It appearing by reports which have been made to the Commander in Chief, that of the recruits, which are raised more especially for foreign service, the majority are of an ineligible description, notwithstanding the minute and positive instructions, which have from time to time been issued for the guidance of those, who are charged with the recruiting inspections,—the Commander in Chief is at length obliged to declare, that his Royal Highness will consider it to be his duty to recommend the immediate removal of the staff of any district, which, after the present warning, shall be reported to have produced objectionable recruits, as well as to fix upon the culpable officer, in every practicable case, the expense attending the enlistment of a subsequently rejected recruit; his Royal Highness finds, that however the instructions as to stature may be kept sight of by the inspectorial authorities, those relating to the general appearance of the recruit are overlooked. His Royal Highness, therefore, applies this caution more particularly to points connected with the constitutional appearance, mould of chest, size of bone, and likelihood of growth of the recruit.

I have, &c.

(Signed) H. TORRENS, A. G.

The Inspecting Field Officer,
—— District.

No. XV.

RECRUITING DEPARTMENT.

Adjutant General's Office,
Dublin, 15th February, 1825.

SIR;

I have it in command from Lieut. Gen. Lord Combermere to signify to you, that in consequence of the difficulty which is found in raising the particular description of men required for the service of the royal staff corps,—the Commander in Chief considers it necessary to direct that some relaxation shall take place in the surgical inspection of recruits for this regiment; and that in cases, where the officer recruiting for the staff corps may think advisable to press for the enlistment of good mechanics or artificers, although they may be subject to some of the minor objections, which apply to the line, and are specified in the medical instructions, the inspecting surgeon shall nevertheless be authorized to pass such men, and be absolved from the responsibility on this account, if their defects are not such as will interfere with the performance of the duties required of them in the corps for which they have enlisted.

I have, &c.

(Signed) J. GARDINER, D. A. G.

Lt. Col. Hart, I. F. O.
Centre District.

No. XVI.

RECRUITING DEPARTMENT.

Adjutant General's Office,
Dublin, 9th May, 1825.

SIR;

I have the command of the major general commanding, to transmit to you the accompanying copy of

a letter dated 30th ultimo, which has been received from the adjutant general of the forces, conveying the expression of the Commander in Chief's surprise at the great proportion of recruits rejected in the different recruiting districts in this establishment during the period mentioned.

You will be pleased to explain minutely to the surgeon of the district under your superintendence, the view and expectations of his Royal Highness, therein so fully pointed out, and at the same time intimate to him, for his information and guidance, that a communication has been made to the director general of the medical department, desiring him to take the earliest opportunity of corresponding with the staff medical officers, and of calling upon them for any reason they may be desirous of assigning for their proceedings in the particular instance which has attracted the notice of his Royal Highness the Commander in Chief*.

I have the honour to be, Sir,

Your obedient Servant,

(Signed)

J. GARDINER, D. A. G.

Inspecting Field Officer
of the Recruiting Service, Dublin.

No. XVII.

RECRUITING DEPARTMENT.

Horse Guards, 30th April, 1825.

SIR;

From a general summing up of the number of recruits inspected in the Irish districts, from the 25th December 1823 to the 24th December 1824, the state-

* During the year 1824, the proportion of recruits rejected was 29.09 per cent.; in 1818 it was 39.5. Vide Appendix, No. IV.

ment in the margin* appears to be the result (as reported by the director general of the army medical department). The amount of the number of recruits rejected could not but strike the Commander in Chief with surprise, and his Royal Highness could not associate such results with a careful and fair inspection of recruits. Under the impression which this return was so well calculated to produce, his Royal Highness commanded me to request that you will cause it to be explained to the district surgeons, that a very different result will be hereafter expected, and that technical and trivial objections, or a fear of responsibility which is groundless, because it never could be permitted by his Royal Highness to operate in any way injuriously to the zealous discharge of duty, will not be admitted as an excuse for such sweeping rejections as have already occurred to the evident and extensive injury of the service. I am further directed to acquaint you, that the Commander in Chief's views on this point will be fully explained to the commanding officers of corps, with a view to the removal of the fear under which the first inspecting surgeons give their opinions on the case of recruits, and that his duty should be performed on a fair principle of service, the good of which alone should be considered, and liberally considered, in the inspection of recruits.

I have, &c.

(Signed) H. TORRENS, A. G.

The General Officer
Commanding, Dublin.

Approv. Rejec.

* Dublin District,	from Dec. 25, 1823, to Oct. 24, 1824 ...	2180 ...	923
Cork	from August 30, to Dec. 24	141 ...	81
Newry	Ditto Ditto	690 ...	264

No. XVIII.

*(Circular.)*Army Medical Department,
4th July, 1825.

SIR;

In reference to the several instructions upon the subject of the examination of recruits, as noted in the margin*; and it having been lately represented that the supplemental orders and directions issued in 1821, have in some instances been so far allowed to operate on the apprehensions of examining surgeons, as to lead to the rejection of men, who might, on a general view of their cases, be considered fit for service, I request it to be understood, that the rules for observation, noted in the circular memorandum of 24th August 1821, were intended, not to supersede, but rather to elucidate the instructions printed in the book of regulations for regimental hospitals. The directions there issued are the permanent and fixed guides to surgeons in passing recruits; and it is expected that medical officers, in the performance of this highly important duty, will not allow themselves to reject men whose disqualifications are not decidedly apparent, or to receive such as are manifestly unfit for soldiers.

Attention to the spirit of the orders on this head, unfettered by trivial or questionable objections, will ensure the results expected by the Commander in Chief from the exertions of the several classes of officers, who are employed on the service of recruiting, and merit a continuance of the good opinion his Royal Highness is pleased to entertain and to express of the medical staff.

I have the honour to be, Sir,

Your most obedient humble Servant,

J. M'GRIGOR, D. G.

To ——— Surgeon.

* August 24, 1821; June 1, 1824.

*Extract from the Book of Regulations referred to in
the foregoing Letter.*

“ It is the duty of the regimental surgeon to inspect and examine recruits before final approval: he is to be careful not to certify to any man's fitness for service, whose state of health he has not minutely investigated. The recruit at his examination is to be stript of all his clothes, in order that it may be ascertained that he has no mark of punishment, no rupture, or scrofulous affection of the glands, that he has the perfect use of his eyes and ears, the free motion of every joint and limb, that he has no sore leg, nor mark of an old ulcer with adhesion of the skin to the bone, varicose veins, nor diseased enlargement of bones or joints; he must be neither consumptive, nor, so far as can be ascertained, subject to fits: with any of these defects, the man is to be reported unfit for service.”

No. XIX.

RECRUITING DEPARTMENT.

(Circular.)

Horse Guards, 19th August, 1825.

SIR;

The large proportion of recruits rejected on surgical examination during the last year having attracted the Commander in Chief's particular notice, his Royal Highness was led to inquire into the causes to which the result might be attributed; and there is reason to believe, that many desirable recruits have been refused by the first inspecting or district surgeons for technical and trivial objections, from a fear, if passed by them, these objections, however slight, would afterwards be laid hold of by the regimental

surgeons as reasons for rejecting the recruits on their joining the corps. The Commander in Chief has in consequence directed a communication to be made to the several districts, calling upon the surgeons to execute their duty of inspection fearlessly and to the best of their unbiassed judgment; and his Royal Highness desires, that you will intimate to the medical officers under your orders his expectation, that the examination of recruits shall henceforth be conducted on a fair principle of service, and with due consideration for the opinion of the first approving surgeon, who cannot be supposed to be actuated by any other than correct motives in passing recruits.

* * * * *

I have, &c.

(Signed) J. MACDONALD, D. A. G.

To the Commanding Officer
of — Regiment.

REGULATIONS

FOR PASSING

CONSCRIPTS FOR THE FRENCH ARMY.

“ I would strongly recommend a perusal of the regulations for examining conscripts, incorporated in the Code de la Conscription, to all medical officers.”—Principles of Military Surgery, by Dr. Hennen, second edition, page 450.

That the purport of these regulations may be the better understood, I have prefixed a brief abstract of the Code de la Conscription.

[Until the period of the revolution the French army was chiefly recruited by voluntary levies, but after that event, compulsory means of supplying the men required by Government were universally adopted. The first compulsory enrolment took place during the month of March 1793, by a requisition of 200,000 men; but by a subsequent decree of the 21st of August in the same year, a more gigantic mode of recruiting was resorted to. Every man in France able to bear arms was placed at the orders of the State, and being divided into classes, the youngest, to the amount of five hundred thousand, afterwards augmented to a million, was commanded to march for immediate action. The rest of society was so disposed of as might best second the efforts of the actual combatants. The married men were to prepare arms and forward convoys,

the women to make uniforms, the children to scrape lint, and the old men to preach republicanism. No excuse was sustained for want of personal compliance with the requisition for personal service, no delay permitted, no substitution allowed, actual and literal compliance was demanded from every one, and of what rank soever. Conscripts who failed to appear, resisted, or fled, were subjected to the penalties which attached to emigration.

The army continued to be recruited by requisition till 1798, when the first conscription was decreed. At the revolution, France was divided into one hundred and twenty-two departments, the departments divided into districts or *arrondissements*, from three to five in number. The *arrondissements* into cantons, and the cantons into municipalities amounting to about fifty-five thousand. Each department is governed by a prefect, who has a counsel to assist him. This court or board has under its jurisdiction the authorities appointed to administer the affairs of each subdivision. These several authorities were charged with a heavy responsibility in carrying into effect the law regarding military levies. The number of conscripts for the year was determined by a law of the senate, and the same law regulated the contingent of each department, according to the amount of its population. These lists contained the names of the whole youth of the kingdom, from the age of twenty to twenty-five, divided into five classes; the first contained those who were aged twenty years complete before the commencement of the year relative to which the conscription was demanded, and the same rules applied to the other classes. In practice, however, the second class of conscripts was not called out until the first was actually in the service; nor was it usual to demand more than the first class in any one year. Persons liable to the conscription laws were also bound to enrol

themselves at the office of the municipality. Both lists were transmitted to the minister of war.

The conscripts of each canton were next assembled and inspected by the administration. Such as pleaded infirmities, were examined on the spot by health officers. Tickets regularly numbered, to the amount of the names on the list, were publicly deposited in an urn, and indiscriminately drawn out by the conscripts or their friends. The lot falls upon those who draw the numbers below the amount of the quota. These were the conscripts of the active service. An equal number was formed into a body which was termed the conscription of the reserve. A third body was created of supplemental conscripts, equal in number to one-fourth of the whole contingent, and destined to fill up vacancies which might be occasioned by death, desertion, &c.

The conscript law admitted of very few exceptions. Public schools, as well as the universities of theology, law, and physic, were all forced to surrender up their pupils. Proxies were not received as a matter of right, although they were sometimes allowed. The serving of substitutes was discouraged by Government. Few individuals were able to procure substitutes, more than 200*l.* being frequently given for a proxy. In 1812, the price of a substitute had risen as high as five hundred louis. The principal provided a sum of about 5*l.* for the equipment of his substitute, who must possess a robust constitution, have a good character, and be between the age of twenty-five and forty, and consequently beyond the reach of the conscription laws. The substitute assumed the surname of his principal, in order that the latter might be known and compelled to march, should his proxy desert or be lost from any other cause than death or wounds received in battle within the term of two years.

Parents, public functionaries, or others, who contributed to defeat or retard the operation of the conscript law, were liable to heavy penalties. "The brand, the pillory, or the galleys awaited a magistrate, who was found to have favoured any individuals on whom the law of conscription had claims."

Conscripts convicted in feigning disabilities were sentenced to hard labour for five years. Absentees or refractory conscripts underwent corporeal punishment, and were each amerced in the sum of about 120*l*. This sum, together with the expenses incurred in his apprehension, was levied upon the property of the father or mother, when the fugitive possessed none of his own. Conscripts absenting themselves were liable to the same penalties as deserters; namely, 1st. Death. 2d. The punishment of the ball. This penalty consists in the attachment of an iron ball, of about eight pounds weight, by a chain of seven feet in length, to the leg of the culprit. He was clothed in a dress of infamy, and condemned to hard labour during ten hours daily, and in the interval of rest to be chained in solitary confinement. The duration of this punishment was commonly ten years. 3d. Public or hard labour for a term of three years. A fine of about 150*l*. was inseparable from all cases of desertion.

To secure the fidelity of the executive officers, a host of informers was employed. The utmost rigour was exerted, and publicity given to the infliction of penalties, in order that the quickening impulse of fear might have an influence on the general mass. Frequently the regular levies were anticipated by law, so that boys unable to bear the accoutrements of a soldier were obliged to join the army. Every new conscription spread consternation through all the families of the empire. When the conscription law was first framed, it was thought the strength of the army

would be kept up by adding one-fifth annually, but it often required a third, and sometimes a half. Such a proportion of recruits for an army, amounting to from seven to eight hundred thousand, was much felt even in so populous a country as France. To evade the operation of this rigorous law, the public functionaries were sometimes bribed, and disabilities feigned under the direction of medical men, who received large rewards for their services. As an instance, a surgeon's apprentice was accused of having blown into the eyes of a number of conscripts a powder, calculated to excite inflammation ; for this service he received from each somewhat more than 200*l*. These facts will sufficiently account for the rigorous inspection of those conscripts who claimed an exemption from joining the army in consequence of defects or infirmities.

On the restoration of the King an attempt was made, but in vain, to fill up the ranks of the army by voluntary enlistment. The conscription is therefore continued, although it must be confessed it is no longer the terrible warrant of death that formerly bore that name. The period of service is now limited to five years. Mr. Mathews, in his "*Diary of an Invalid in the years 1817, 1818, and 1819,*" gives an interesting account of the drawing for the conscription at Montpellier. — "The drawing (he says) was an amusing scene, and truly French. The people assemble in a sort of amphitheatre : the prefect presides : the names of all those of the prescribed age are called over, and every person, of whatever rank, high or low, answers to his name and draws his lot. If he is absent, the prefect draws it for him. When any one drew a number above the complement required, thereby ensuring his own exemption, his antics of joy were in the highest degree comic ; and when the number was within the complement, the exultations of the spectators, whose prospects were thereby bettered, were ex-

pressed with the loudest applause, without any consideration for the feelings of the drawer. The present assessment is light enough, as may be collected from the price of a substitute, who may now be procured for five hundred francs (20*l.*), whereas in Napoleon's time the price has been as high as fourteen thousand francs (560*l.*)*."

The following regulations, or tables of disease, were prepared by a council of health during the reign of the

* Edinburgh Review, vol. xiii; Life of Napoleon Bonaparte, by the author of Waverley; Tale of the Conscript's Wife, Third Series of High Ways and Bye Ways; Narrative of a Forced Journey through Spain and France, in the years 1810 to 1814, by Major General Lord Blaney.

The Jews, the Greeks, the Romans, and a number if not all of the Oriental nations, filled up the ranks of their armies by conscription. The armies on the continent of Europe are still levied in a great measure by this means. Conscription is practised in our own country under the name of ballot for enrolling the militia. The Roman republic made every man available for military service, until he reached the age of 46. I am not aware that any thing is known respecting the infirmities which entitled a man to be exempted from military duty in ancient times, or who decided upon the claims of individuals that professed themselves unable to sustain the fatigues of war. According to the Mosaic law, several moral causes were admitted as rights or privileges for exemption from military service (Deut. xx, 5—8; Judges vii, 3; Deut. xxiv, 5), but no mention is made of disqualifying physical defects. "The law of the state of New York directs, that the age and *ability* to bear arms of every enrolled person shall be determined by the commandant of the company, with the right of appeal to the commanding officer of the regiment; and adds, *that the certificate of a surgeon or surgeon's mate shall not be conclusive evidence of the inability of any person to bear arms.*" It would appear that a captain may avail himself of the opinion of the medical officer with regard to an individual who pleads bad health, or bodily infirmity; but that the final decision must depend upon his sovereign will and pleasure.—*Beck's Medical Jurisprudence.*

Directory, and incorporated into the Code de la Conscription by Bonaparte: they are still in force.

“ Every conscript, who pleads bad health or bodily inability, must appeal in the first instance to his municipal administration, and he is not entitled to present himself for this purpose, unless he bring a certificate from a health officer, that he is really affected with a disease which appears to him to authorize an application. He is then to be examined by a health officer, in presence of the administration, if he be capable of attending, or in presence of a delegate from it, if he be totally unable to attend in person. Before any dispensation be granted, the commissioner of the executive directory must be heard, and he may, if any doubts be entertained, require a counter-examination. When the municipal administration consider any appeal to be without foundation, the conscript is obliged to join the army without delay. When they consider themselves incompetent to decide upon the appeal, the conscript is allowed to present himself immediately before the central administration for their decision; and the municipal administration can only grant definite dispensations in cases of palpable and notorious infirmities. They may allow provisional dispensations, not exceeding three months, when acute diseases or accidents prevent the conscript from presenting himself.

“ All the decisions of the municipal must be sent to the central administration, for their approbation or rejection. When the central administration refuses to certify the dispensation granted by the municipal administration, the petitioner is obliged to present himself immediately for examination.

“ When the central administration confirms a definitive dispensation of the municipal administration, the commissioner of the directory transmits it to the minister of war, who sends to the conscript a dispensation, or annuls the

dispensation, according to principles to be mentioned. While waiting for the decision of the minister of war, the conscript remains at home.

“ When the central administration confirms a provisional dispensation, the commissioner of the directory attached to it notifies it to the commissioner attached to the municipal administration, who is charged with the duty of obliging the conscript to join the army after his dispensation has expired, allowing him, however, according to the forms prescribed by law, to show just reason for soliciting a definitive dispensation, or a renewal of his provisional dispensation.

“ Every application for a dispensation, definitive or provisional, for diseases not obvious, or diseases which do not prevent the appellant from attending at the capital of the department in person, must be judged by the central administration. Should the central administration decide against his application, the conscript has no appeal; but if it be decided in his favour, the commissioners, or any number, may protest, and order counter-visits; and, lastly, the minister at war may annul every dispensation.

“ The officers of health are chosen, as much as possible, from among those paid by the state, or attached to the military service.

“ To prevent all collusion between the health officers and the appellants, the administrations are not to name the inspector until the moment of inspection; and whatever the advice of the inspector may be, still the administration is held responsible.

“ Officers of health and others, convicted of having given a false certificate of infirmities or disabilities, or of having received presents or gratifications, shall be punished by not less than one or two years imprisonment, or by fine f not less than 300 or more than 1000 francs.

“ The officers of health, in giving their opinions, are to regulate themselves by the following Tables.

“ TABLE I.

“ *Evident infirmities, implying absolute incapability of military service, and which are left to the municipal administration of the canton.*

“ 1. Total privation of sight. The accident which gave rise to this privation, or the disease which supports it, must be mentioned, and specification made of gutta serena, cataract, glaucoma, the diseases peculiar to the cornea and uvea.

“ 2. The total loss of the nose.

“ 3. Dumbness, permanent loss of voice, complete deafness. These three infirmities ought to be very notorious, and legally established: the accident or known cause giving rise to them, to be mentioned. If there be any doubt of their existence, or if they do not exist in a great degree, the decision is to be reserved for the central administration.

“ 4. Voluminous and incurable goitres, habitually impeding the respiration.

“ 5. Scrofulous ulcers (*ecrouelles*). The symptoms characterizing the disease are to be related.

“ 6. Confirmed phthisis pulmonalis, *i. e.* in the second and third degrees. Care must be taken to report the symptoms characterizing this state: as they are but too evident, they ought to procure an absolute dispensation. But for commencing phthisis, *i. e.* in the first degree, asthma, even chronic, and hæmoptysis, the municipal administration ought to grant only a provisional dispensation, if the sick person be unable to present himself before the central administration, the decision in these different cases being reserved to the latter.

“ 7. The loss of the penis, or of both testicles.

“8. The loss of an arm, leg, foot, or hand ; the incurable loss of motion of these parts. The accident or disease occasioning it is to be mentioned.

“9. The aneurism of the principal arteries.

“10. The curvature of the long bones, rickets, or nodosities, sufficient to impede evidently the motion of the limbs. Other diseases of the bones, although great and palpable, are sometimes liable to doubt, and therefore are reserved for the judgment of the central administration (see articles 12 and 23 of the second table).

“11. Lameness well marked, whatever be the cause : this must be precisely stated. The same is the case with considerable and permanent retraction of the flexor or extensor muscles of a limb, or paralysis of these, or a state of relaxation impeding the free exercise of the muscular movements.

“12. Atrophy of a limb, or decided marasmus, characterized by marks of hectic and wasting, which should be stated in the report.

“TABLE II.

“Infirmities or diseases, which occasion absolute or relative incapability for military service, and which are reserved for the examination and opinion of the central administration of the department.

“1. Great injuries of the skull, arising from considerable wounds ; or depression, exfoliation, or extraction of the bones. These sometimes occasion all, but commonly some of the following symptoms ; affection of the intellectual faculties, giddiness, swimming in the head, drowsiness, nervous or spasmodic symptoms, frequent pains of the head. The report shall mention the symptoms which the patient actually has (B).

“2. The loss of the right eye or its use. This defect disqualifies a man for serving in the line, but does not

prevent him from being useful in the army in other services' or in the marine.

“3. *Fistula lachrymalis*, chronic ophthalmia, or frequent rheums in the eyes, as well as habitual diseases of the eyelids or lachrymal passages, of such a nature as obviously to injure the powers of sight (A).

“4. Weakness of sight, permanent defects of vision, which prevent objects from being distinguished at the distance necessary for the service of the army. Short-sightedness, night blindness, confusion of vision (A).

“5. Deformity of the nose, capable of impeding respiration considerably; *ozœna* and every obstinate ulcer of the nasal passages or palate, caries of the bones of these parts, and incurable polypi.

“6. Stinking breath from an incurable cause, as well as fetid discharges from the ears, and habitual transpiration of the same character, when incurable. Soldiers who emit these fetid exhalations are rejected by the corps, and repulsed by their comrades.

“7. Loss of the incisor or canine teeth of the upper or under jaw, *fistulæ* of the maxillary sinuses, incurable deformity of either jaw by loss of substance, necrosis, or other cause, hindering the biting of the cartridge, or impeding mastication and injuring the speech. A person without canine or incisor teeth cannot be a soldier of the line, but may be employed in other services.

“8. Salivary *fistulæ*, and the involuntary flow of saliva when incurable.

“9. Difficulty of deglutition, arising from paralysis or some other permanent injury, or incurable lesion of the organs in that function.

“10. Permanent and well-established diseases of the organs of hearing, voice, or speech, considerable in degree, and capable of impeding their use considerably. These infirmities are often very doubtful, they may be simulated,

and ought not to be decided upon without taking the precautions directed in note B.

“11. Ulcers and tumours of a scrofulous nature. Scrofula very rarely exists without being accompanied by glandular swellings, and other symptoms indicating a scrofulous cachexy, which ought to be noticed in the certificate.

“12. Deformity of the chest or crookedness of the spine, sufficient to impede respiration, and to prevent the carrying of arms and military accoutrements. When these deformities of structure are not of a certain degree, they do not disqualify for the lower services of the navy, and other functions about the army.

“13. Phthisis in the first degree, confirmed asthma, and habitual periodical and frequent spitting of blood. Frequently the state of patients attacked with these diseases is evidently bad, and accompanied by circumstances which leave no doubt; they then admit of an absolute dispensation; sometimes they are less decided, when only a provisional judgment is to be given, and the proof of testimony and methodical treatment is to be required.

“14. Irreducible ruptures, or those that cannot be reduced without danger.

“15. Stone in the bladder, gravel, habitual incontinence or frequent retention of urine, as well as severe diseases or lesions of the urinary passages, fistulæ of these parts, whether incurable or requiring constant medical treatment. Some of these admit of doubt, such as the retention, and especially the incontinence of urine. They may be simulated, or at least artificially provoked: in these cases the decision must be regulated by the principles laid down in Note C.

“16. The permanent retraction of a testicle, its strangulation in the ring, sarcocoele, hydrocele, varicocoele, all

severe affections of the scrotum, testicles, or spermatic chords, known to be incurable.

“ 17. Ulcerated hæmorrhoids, incurable fistula in ano, periodical hæmorrhoidal flux, habitual and chronic flux of blood from the intestines, habitual incontinence of feces, habitual prolapsus ani. These different infirmities ought to be authentically established by able health officers, who have for a long time treated and observed the patient. Until the certainty and incurability of these affections be established, only a provisional dispensation can be granted.

“ 18. The total loss of the thumb or great toe, or the forefinger of the right hand, or two other fingers of one hand, or two toes of one foot, the mutilation of the last joints of one or several toes or fingers, the irremediable loss of motion of these parts. Should these infirmities and mutilations interfere, though in different degrees, with several parts of the service of the infantry, they do not always prevent the person from being useful in other services of the army, such as miners, sappers, pioneers, and pontooneers, or even that of the cavalry, if the mutilation of the toes or right hand be not considerable; lastly, in the navy. If therefore the petitioner, on account of any other mutilation than the loss of a thumb, is in other respects strong and of a robust constitution, he ought to be sent to the army. This decision will be still better founded if the mutilation be suspected to be recent and voluntary.

“ 19. Incurable deformities of the feet, hands, limbs, or other parts, that impede marching or the handling of arms, or carrying the accoutrements, or the free motion of any weapon. These deformities may give rise only to a relative invalidity; in that case it is proper to detail the physical effects which result from it, to establish in what kind of service the petitioner might nevertheless be employed.

“20. Large and numerous varices.

“21. Cancers and ulcers which are inveterate, of bad character, incurable, or whose cure it would be imprudent to attempt. These ulcers are always accompanied by other symptoms which indicate a bad habit of body; these ought to be mentioned in the report.

“22. Large and old cicatrices badly consolidated, especially if they have adhesions, and be accompanied by loss of substance, are covered with crusts, or attended with varices.

“23. Severe diseases of the bones, such as diastasis or separation, ankylosis, caries, or necrosis, spina ventosa, osseous tumours, and those of the periosteum, when considerable; they may still be compatible with some kinds of service.

“24. Diseases of the skin, when they are capable of communication, when they are old, hereditary, or obstinate, as tinea, acute, moist, and extensive herpes, obstinate and complicated itch, elephantiasis, lepra. In all these cases a definitive dispensation cannot be granted, until after methodical treatment by very intelligent officers of health has been long continued in vain, or unless the constitution of the patient be obviously injured; otherwise there is only grounds for a provisional dispensation, to give the petitioner time to undergo the proper treatment.

“25. Decided cachexy of a scorbutic, glandular, or other nature known to be incurable, and characterised by evident symptoms of long standing, which must be mentioned in the certificate; dropsies known to be incurable. These different cachexies, when carried to a great degree of degeneracy, render the patient absolutely incapable of any military service; but when they are not inveterate, or are produced and supported by a cause which may be efficaciously combated, they only entitle to a provisional dispensation.

“ 26. Debility and extreme extenuation, joined to a diminutive stature, or to a very tall stature out of the ordinary proportions. These cases are not unusual at the age of conscription, and require much judgment in deciding upon them; often they only entitle to a provisional dispensation (See Note D).

“ 27. Gout, sciatica, inveterate arthritic and rheumatic pains, impeding the motion of the limbs and trunk. These infirmities often give rise to doubts, and are to be judged of according to the principles in note E.

“ 28. Epilepsy, convulsions general or partial, convulsive motions, habitual trembling of the whole body, or of a limb, general or partial palsy, madness and imbecility. The real existence and incurability of any one of these affections are sufficient to authorize an absolute dispensation from all military service. But these cases are often equivocal, the disease may be simulated, and is to be judged of with the precautions mentioned in note B.

Council of Health,

Paris, 28 Pluviose, an VII.

“ Notes upon the Tables of Diseases, entitling the conscripts of the French army to dispensations.

A.

“ When an external and obvious injury prevents vision, or affects the organ of the eye, as in some of the cases cited in the first article of the first table, and in the third article of the second table, the surgeon can decide with certainty; but the feebleness of sight cannot be estimated with such precision when no external appearance indicates it. The same observation applies to myopia, or short-sightedness. Still however the distance at which a person who complains of it is able to read, the effect which is produced upon his vision by means of a glass not calculated to improve the vision of short-sighted people, may

furnish surgeons with tests for the discovery of the truth or detection of the fraud. With regard to nyctylophia, or nocturnal blindness, it is rare in youth, and often only temporary.

“ With regard to amblyopia, which consists of seeing objects at all distances confusedly during the day as well as night, we acquire from examination some certainty, when we perceive that the pupils have changed their diameter, or when they have lost somewhat of their mobility, or of their regularity. Some persons have also a convulsive vibration, which is called visio vaga. It is the duty of the surgeon examining conscripts for the army, not to pass his judgment upon these different diseases of the eye, until he has collected all the rational proofs of their existence. To acquire a greater degree of certainty, he ought still to require, that there should be brought before the commissary of the executive directory the testimony of ten individuals, not the relations of the appellant, but who know his habits in private life. Finally, though the different defects of sight, when they are considerable, may expose the soldier labouring under them to endanger the loss of a post, they do not hinder him from being useful in the other services in which he may be employed in the army.

B.

“ It is difficult to judge readily in every case, which does not present some sensible appearance of an organical lesion. To give a negative judgment would not be just, because the conscript, at the time of his visit, might not find himself in that state which he complains of. On the other hand he might feign deafness, pains, even a fit of epilepsy, without being in reality subject to any of these diseases, and an exception decided upon so equivocal a ground would be really an infraction of the law. It is

therefore necessary to watch these young people, either in a military hospital or in their private life. The testimony of the surgeons who attend them, and that of ten householders of known probity, who are not related to him, public notoriety certified by the constituted authorities, are so many means, which, added to recognised rational signs, may increase the probability almost to certainty, and found an impartial judgment. Moreover, as most of these diseases yield to time or skill, there is no need for granting an absolute or definite exemption for those recruits who are afflicted with them, before the surgeons can pronounce their opinion with perfect certainty: it is necessary that the young men should present themselves for examination at stated periods, and sometimes for several months.

C.

“Retention of urine produces well known symptoms, whose existence or absence contribute to discover the reality or the pretence of the malady, its durability or its transitory nature. With regard to incontinence of urine, it is difficult to judge whether it be natural or artificial, transient or incurable, because the redness and cracks in the skin, which urine produces, are common to the impostor and the invalid. Testimonial proof is also here insufficient; however, the physical form and constitution of the claimant taken together may give sufficient grounds for the decision; and if the young man has in other respects a healthy and vigorous look, he may be sent to the army without any inconvenience.

D.

“The last obvious circumstance which ought to procure exemption from military service is marasmus, which is to be considered as the last stage of the cachectic state. This is produced by either one or several diseases: the

emaciation may be owing to a defect of vigour and of growth; the former state scarcely allows of hope, the latter is susceptible of amelioration. It is certain, that, at the age at which young men become liable to serve, great leanness, joined with a little stature, muscles not well marked, and a shrill voice, indicate that the youth will never be a man in the strict sense of the word, or that before becoming it, and being capable of enduring the fatigues of a military life, one of those revolutions in his constitution must take place, which nothing but time, a good diet, and exercise proportioned to his strength, can bring about. If such a one by age is liable to serve, his nature still ranks him among children, justice and humanity require the adjournment of the decision respecting him, from three months to three months. When a conscript has grown very rapidly; when he is tall, lean, and slender made; when he has a long neck, arms, and legs, and when his breathing is difficult from the least exercise, such an individual is out of the question, until nature has added in strength what it has hitherto confined to stature.

E.

“When the appellant is afflicted with well-attested gout or rheumatism, which confine him to bed or to the house, and hinder him from repairing to the head quarters of the department, he ought to be considered as afflicted with an acute disease, as having a right to a provisional dispensation. With regard to these affections in their chronic state, it is seldom that the gout, which has arrived at a certain degree of obstinacy, does not leave on the affected parts either nodosities or sensible contractions. Rheumatism, and especially that which attacks young people, who however in general are much less subject to it than those more advanced in age, alters the form of the muscles and the colour of the skin. It causes a wasting of the part

affected, which may be recognised by simple inspection. But when no sensible appearances prove the existence of rheumatism, the surgeons may draw some 'probable inferences from knowing the conscript's profession, and the climate in which he dwelt. We know that young people in the country are more subject to these affections than those in towns, and that in some kinds of abodes they are more easily contracted. Joining all these data, combining and comparing them together, the surgeons may commonly distinguish a real affection from a feigned one. As it is but just, that in some of the equivocal cases, such as those respecting the diseases of the breast, humanity should incline to the conscript's side, so with respect to pains and rheumatism, which are not proved, it is equally proper to prefer severity to indulgence, as military exercise, far from aggravating this predisposition, if it exist, will only contribute to remove it*."

* These regulations are very closely imitated in the army of the King of the Netherlands.—*Hygiene Militaire*, by Kuckhoff, p. 17.

ABSTRACT OF REGULATIONS

FOR

THE MEDICAL EXAMINATION OF RECRUITS

FOR THE

PRUSSIAN ARMY.

The Prussian army is recruited by involuntary levies. Every man in Prussia, upon his reaching the age of twenty, becomes available for the service of the State as a soldier. Conscripts, whom Government provides with pay, clothing, &c. must serve for a period of three years. Young men of good families, who serve without pay, and furnish an equipment at their own expense, are discharged after one year's service. Every Prussian therefore, who has passed the period of manhood, has been a soldier, or he is furnished with a medical certificate, stating that he labours under an infirmity disabling him for military service, either permanent or temporary. After a man has served three years in the standing army, he is transferred to the militia, a branch of the military force which is called out annually for a period of fourteen days. On reaching thirty-two years of age, he is transferred to another class of militia (the landwehr), which is never embodied except in cases of emergency. The regular army consists of about 100,000 men, but including the first class of militia the entire force amounts to 800,000, and the establishment is so organized, that it can be assembled and formed into separate armies in a fortnight.

Except in the new provinces, the people seldom evince much reluctance to become soldiers, and rarely simulate infirmities, either to avoid enrolment or to obtain a discharge.

The following regulations, respecting the examination of conscripts, were issued by the chief of the medical department of the Prussian army in 1816.

“The duty of inspecting recruits, and of determining whether they are fit or unfit for the military service of the country, is one of the most difficult and responsible an army surgeon has to perform. To enable him to execute it correctly and with suitable promptitude, he would require more knowledge and experience than is generally believed; he must possess an intimate acquaintance with anatomy, physiology, and pathology. A knowledge of these sciences is essentially required to qualify him to decide upon the health and general efficiency of recruits, and to distinguish between defects that may be real from those that are only feigned.

“He must also be well acquainted with the duties of the different classes of soldiers, infantry, artillery, and cavalry, during war as well as in peace. The qualifications for performing so important a duty can be acquired only by long servitude and much experience.

“It is impossible to frame specific rules for the examination of recruits, so as to obviate every difficulty. In a great variety of cases the decision must depend on the discretion and experience of the inspecting medical officer. As a general guide, the following regulations may however be useful.

“1. When an individual is brought to a medical officer for examination, he is to satisfy himself in regard to the recruit's ability to undergo the fatigue to which a soldier on general service is exposed, his capability to carry the ordinary accoutrements, and to use effectually the arms with which he is furnished.

"2. Should a recruit be deemed ineligible for active military service, it is next to be determined whether he is fit for a garrison battalion.

"3. Great care ought to be taken to distinguish between temporary and permanent disabilities for service.

"To enable a soldier to perform his duty, and to endure the various fatigues of war, he would require to possess a sound constitution, with a considerable share of muscular capability. His senses should be perfect, more especially the sight and hearing; the teeth ought to be sound, and not many wanting.

INFANTRY.

"Recruits for this branch of the service would require to have capacious well-formed chests, with great strength. Including accoutrements, arms, and ammunition, an infantry soldier is sometimes obliged to carry from sixty to seventy pounds weight. The inferior extremities ought to be free from ulcers, or the cicatrices of ulcers; and the knees should not bend inwards, they ought to be straight and otherwise well formed. The incisor teeth ought to be sound, so as to enable him to bite the cartridge, and he should invariably be able to speak intelligibly. Recruits are not to be selected on account of their handsome appearance, but in consequence of a proper degree of strength and a sound constitution.

"The following defects disqualify a recruit for service in the infantry.

"1. Loss of an eye.

"2. Loss of the incisor teeth.

"3. Hernia.

"4. Loss of a thumb, or the index finger of the right hand.

"5. Loss of a great toe: large bunions, with overlaying or distortion of the toes.

"6. Disproportionately small feet.

"7. Flatness of the soles of the feet.

ARTILLERY.

“The preceding observations apply in an equal degree to recruits for this branch of the service as for the infantry.”

CAVALRY.

“The duties of the cavalry are in some respects less severe than those of the infantry. As the marches of a dragoon are always made on horseback, he is little exposed to profuse perspiration, or to a sudden suppression of it. Hence he is less liable to pectoral diseases, and consequently an equal degree of care is not required to reject men whose chests are contracted, or otherwise ill formed, as in the infantry. For similar reasons the following defects do not disqualify for service in the cavalry; that of being considerably in-kneed, cicatrices of ulcers on the legs, loss of a great toe, moderately deformed feet, flatness of the soles of the feet.

“A recruit for the cavalry ought to possess the power of vision perfectly, his neck should be flexible, and his arms muscular. Cuirassiers require to be strong, powerful men, and to have well-formed chests, as they bear a cuirass of from twelve to fifteen pounds weight.

GARRISON AND VETERAN BATTALIONS.

“Recruits who are unfit for the general duties of the service may sometimes be approved for these corps. The following defects, if in a moderate degree, do not disqualify men for garrison duty.

“1. Stiffness of the joints, or want of agility occasioned by long servitude.

“2. Loss of the left eye, provided the power of vision be perfect in the right.

“3. A moderate degree of impaired vision.

“4. Cicatrices of ulcers on the legs.

“5. Varices of the legs, if not in a very severe degree.

“ 6. Slight traces of scrofula.

“ 7. Want of amplitude of the chest.

“ 8. A slight degree of contraction of the elbow joints.

“ 9. Shortness of one of the lower extremities, provided the defect can be remedied by means of a high-heeled shoe.

“ 10. Loss of the incisor teeth, if the molares are sound.

“ 11. Inguinal or femoral hernia, if the intestine can be retained in its place by means of a truss.

“ 12. Hydrocele, if not very large.

“ 13. Loss of any finger except the thumb.

“ Conscripts who labour under disabilities of a curable nature, or in whom a natural recovery may be expected, are to be furnished only with a temporary dispensation.

“ The following infirmities totally disqualify a recruit for military service.

“ 1. Inveterate tinea capitis.

“ 2. Incurable plica polonica.

“ 3. Old fractures of the cranium.

“ 4. Amaurosis; eversion or inversion of the eyelids; opacity of the cornea.

“ 5. Puriform discharge from the ear, arising from diseased bone.

“ 6. Deafness.

“ 7. Loss of the right eye; near-sightedness.

“ 8. Caries of the bones of the nose.

“ 9. Loss of the palate of the mouth or uvula.

“ 10. Enlargement of the glands of the neck or axilla.

“ 11. Great curvature of the spine, or a considerable deformity of the chest.

“ 12. Rupture of any kind, if very large.

“ 13. Fistulous openings into the cavity of the chest, the abdomen, the urethra, or rectum; the latter defect is greatly aggravated if it be accompanied with large hemorrhoidal tumours.

“ 14. Hematuria, calculus, incontinence of urine.

“ 15. Defects of either the superior or inferior extremities,

such as great curvatures of the bones, elongation or shortening of a limb, trembling, lameness, disease of the bones, immobility of the joints of the fingers, tumours when very large, or when they impede motion.

“ 16. Any serious disease of a joint (white swelling).

“ 17. Extensive incurable ulcers of the legs, large varices of the legs and feet, great malformation of the inferior extremities.

“ 18. Epilepsy, insanity, melancholy, frequent hæmoptysis, asthma, gout.

“ It is the duty of a surgeon, on examining recruits, not to pass his judgment upon the last class of diseases until he has satisfied himself by rational proofs of their existence.

“ 19. Consumption, aneurism, any serious impediment to the motion of the larger joints; chronic cutaneous eruptions.

“ When a conscript is considered unfit for military service, the certificate of his disability must detail minutely the nature of his infirmity, as also whether the exemption from the army be definitive or only temporary.

“ No recruit is to be inspected until the surgeon is furnished with instructions for that purpose. The medical officer is invariably to inspect recruits stripped of their clothes.

(Signed)

GOERCKE,

Physician General and chief of the
military medical department of
the Royal Prussian Army.”

“ Berlin, 16th August, 1817.”

The French and Prussian regulations are calculated to obviate the *simulation* of defects, while our rules are chiefly intended to prevent fraud by the *dissimulation* of infirmities.

RECRUITING

OF

THE BRITISH ARMY.

The strength of the British army is kept up by volunteers, who enlist either with parties under the immediate control of the commanding officer of the regiment in which a man engages, or with recruiting parties acting under the direction of the inspecting field officer of a recruiting district and sub-divisional officers. Recruits of the former class are inspected by the surgeon or medical officer in charge of the regiment or depôt of the corps to which the man belongs. His decision, in regard to the eligibility or ineligibility of a recruit, is conclusive. On the other hand, whatever recruits enlist in the country with parties under the direction of the recruiting staff, are examined at the place where they engage by a person of the medical profession, and subsequently by the district staff surgeon, when they arrive at the head quarters of the district. Recruits who enlist at the head quarters of a district are examined by the staff surgeon, and his decision is conclusive, in as far as regards those whom he rejects. No recruit is finally approved, until he be examined and reported eligible by the medical officer in charge of the regiment or the depôt of the corps in which he has enlisted. Should a recruit who is approved in the country be deemed ineligible by the district surgeon, he is then in some districts, as Dublin and Cork, referred to the ultimate decision of a board

of medical officers. In most other districts the decision of the district surgeon is, I believe, final, with respect to the rejection of country recruits. This throws a heavy responsibility upon a staff surgeon, which I know is sometimes severely felt. In carrying these regulations into effect, an anomaly in military discipline sometimes occurs. An hospital assistant, or very young officer, who happens to be in charge of the depôt of a corps, may in the exercise of his judgment think himself called upon to disapprove of the decision of a staff surgeon, and to return a recruit ineligible, who had been certified "fit" by an officer of that rank. As memoranda, the "Rules to be observed on the examination of a recruit*," are excellently adapted to the purpose for which they are intended; but as many of the defects therein noticed exist in an infinite number of degrees, some discretion is often required to decide whether a blemish be likely to effect the efficiency of a recruit or not. In the performance of this duty, old officers are guided by their knowledge of the duties and habits of soldiers, and by their acquaintance with the frauds sometimes practised by them; whereas a young hospital assistant, without much experience on these subjects, is apt to be influenced by the letter rather than the spirit of his instructions, and consequently to reject men on account of a blemish, which a more experienced officer would not consider a disqualifying defect. But examples frequently occur of men, respecting whose fitness for the service two individuals, of whatever standing or rank in the army, may conscientiously entertain different opinions, without any reflection upon the attention or ability of either. The chief source however of the difference of opinion, that takes place between young medical officers and district surgeons, is the comparative credulity of the former.

* Vide page 13.

If a recruit asserts that he is lame, deaf, or has had fits, &c. he is too often implicitly believed, and sometimes rejected, without any other evidence of a defect than his own testimony. A statement of this kind, coming from a man at his final examination, should be received with much distrust, when it is recollected, that every recruit solemnly declares before a magistrate, that "he is not troubled with fits, and is no ways disabled, &c. &c. to serve his Majesty." This anomaly, it is supposed, has had a tendency to induce district surgeons to select recruits on account of their being free from blemish, rather than because they possess the qualities required to fit them for the army. As soldiers are liable to serve in every variety of climate, to endure great changes of temperature, to be exposed to frequent vicissitudes of weather, to undergo much fatigue in marching, &c. &c. to brave the greatest dangers, and often to sustain considerable privations of the common necessities of life, they would require to possess vigorous constitutions and muscular capability, qualities which often exist with some slight defect, and that may be absent in a man in whom no specific fault can be discovered.

HINTS

ON THE

EXAMINATION OF RECRUITS.

The leading qualities required in recruits may be comprehended under four heads, namely,

Height.

A certain period of life.

Health.

Activity, or the full power of using the several members of the body.

With respect to height and period of life*, they belong

* Medical officers are not required to give their opinion as to the age of recruits, although from a variety of circumstances they ought to be able to form a more correct estimate on that subject than a person who had not made the human frame his particular study. To meet the views of the Commander in Chief in regard to the age of recruits, and to strictly comply with the orders issued from the Horse Guards, occasionally demands close observation. At present, a considerable number of regiments are prohibited from enlisting recruits over twenty-five years of age. Other corps are not allowed to recruit any man under twenty or over thirty; and a few are prevented from enlisting a man under nineteen or over twenty-five. In general, no dependence can be placed upon the age a recruit "stated himself to be" to the magistrate who attested him. It is no uncommon circumstance for a man, when he wishes to enlist, to state his age to be not more than twenty-five; and perhaps in a few weeks, when he has become tired of soldiering, to say he is thirty-five, and even forty. Sometimes also a young lad will assert he is nineteen, and when he comes to be attested or re-examined, he will swear that he is not more than seventeen or eighteen. The spirit of the orders regarding the age of recruits will, I presume, be more effectually followed by estimating the

to the province of military officers, while the qualities of health and activity are in general left to the determination of the medical branch of the service. From their professional knowledge and experience of the duties of soldiers, medical officers are presumed to be capable of forming a tolerably correct opinion of the health of recruits, their power of enduring fatigue, and general efficiency.

The infirmities or defects that disqualify recruits for military service, may be divided into three classes.

1. Obvious defects (chiefly external).
2. Defects not obvious (chiefly internal).
3. Feigned defects.

period of life by organic phenomena, rather than by a succession of time, even if we had the most satisfactory information in that respect. Some lads of eighteen are further advanced, and possess more of the qualities that constitute an efficient soldier, than individuals of twenty-one; while other persons, who have not lived twenty-five years, evince traces of decay, arising perhaps from intemperate habits, previous disease, or a feebleness of the constitution. The changes of the physical character of man are so imperceptible, and the transition so little apparent, that no definite marks of any particular age can be assigned. During the age of adolescence, the head is often comparatively large, the spine straight and long, and the inferior extremities proportionably diminutive. Puberty is characterized by an increased animation of countenance, hair on the chin, arm pits, and pubis, an expansion of the thorax, and an evolution of the genital organs, with a more complete development of the lower extremities. At about nineteen or twenty, some of the wisdom teeth generally appear; this, although liable to many exceptions, is the most specific diagnostic mark that organization affords of a particular period of life. The bones become gradually thicker, the joints strong, and the shoulders broad, the muscles firmer and more expanded. Under the skin more fat is deposited, which is diffused over the body. In the progress of life, corpulency to a certain degree commonly supervenes, and, in most men, the belly becomes prominent. The approach to an advanced period of life is indicated by wrinkles on the forehead, particularly round the eye, in consequence of the absorption of fat, and by the muscles becoming less firm, the skin softer, and the extremities less plump.

Obvious Defects.

Defects of the first class are frequently dissimulated by recruits, who are often instructed in this species of fraud by the men belonging to recruiting parties, and old soldiers. Much care is therefore required on the part of a medical officer, to obviate the various means which are adopted to deceive him*.

Attempts are sometimes made to impose upon military as well as medical officers. To guard against fraud in regard to the height of men, an order was issued in the month of June, 1819, directing, that until further orders all recruits should be measured without shoes or stockings. Since that period however some instances have occurred, where recruits have been enabled to increase their apparent height, and to escape detection, by glueing pieces of buff to the naked soles of the feet†. The appli-

* “Persons enlisting and wilfully concealing any infirmity, are punishable as incorrigible rogues.”—Mutiny Act, sect. 92, 100.

The French surgeons have very little confidence in the honesty of a recruit, who enlists voluntarily into their service, or who becomes a substitute for a conscript: one says, “*Tout remplaçant est à bon droit suspect. On ne saurait donc être trop clair voyant, si l’on ne veut point s’exposer à être dupe de la malice et de l’astuce des hommes de cette classe, avec lesquels la méfiance est la mère de la sûreté.*”

† Fraud in regard to the apparent height of recruits is of frequent occurrence. Sometimes individuals endeavour to appear taller than they really are, and sometimes lower, accordingly as it may suit their views. The height is reduced by flexing the head forwards a little, pushing out the abdomen, and slightly bending the knees. By these means a man may appear to be an inch lower than he really is, without always making the fraudulent schemes so conspicuous as to lead to detection. It is surprising how often intelligent and experienced officers are imposed upon in this way, by persons of whose capacity and mental acquirements no very high opinion could be formed. One instance may be mentioned: during the summer of 1809, Colonel Lindsay, inspecting field officer of the

cation of Warren's Blacking has likewise been adopted to dim the brightness of grey hairs.

centre district, approved of Nicholas Martin, a lad about fifteen years of age, and 5 feet 3 inches high, for the 18th dragoons. Upon arriving at Brighton, the head quarters of the regiment, he was measured in the presence of Colonel Jones, and found to be only 5 feet 1 inch in height. Colonel Lindsay was called upon by Sir Harry Calvert, to assign a reason for his having so far deviated from the recruiting instructions, as to approve of a recruit so low as Martin. The Colonel's reply stated, that the recruit in question was 5 feet 3 inches when he measured him. Martin was then ordered by Sir David Dundas, the commander in chief, to be measured in the presence of a general officer, that he might be able to decide how far blame ought to be attached to the approving officer. This was performed under the superintendence of Major General Hugonin, who certified, that the recruit in question measured exactly 5 feet 1 inch. Suspicions were now entertained regarding the identity of the person who had joined the 18th, and the lad approved by Colonel Lindsay; and General Hugonin was instructed by Sir Harry Calvert to investigate that subject. He did so, and reported, that he felt satisfied the lad he examined had been approved by Colonel Lindsay. Martin was then directed to be discharged, and the levy money ordered to be paid by Colonel Lindsay, "owing to whose neglect a recruit so totally unfit was received into the service." The Colonel still persisted, however, in asserting, that he never had approved of a recruit below the regulated height, and Martin was in consequence sent to Dublin for the purpose of being re-measured. On his arrival he was placed under the standard by Colonel Lindsay, and found to measure 5 feet 3 inches. He attempted to reduce his height, but that species of fraud being well understood here, it was instantly detected. He was afterwards measured by General Clinton, A. G., who certified, that Martin was measured in his presence by the standard received from the adjutant general of the forces, and actually measured the full height of 5 feet 3 inches, without shoes or stockings: he was then sent to join his corps, and "a very particular letter" addressed to Colonel Jones on the occasion.

The French conscripts, in addition to the means already noticed, for reducing the apparent height, removed the thick cuticle covering the sole of the foot, and cut the hair as close as possible.

The position of a recruit, when he is measuring, ought to be

In the examination of recruits, the following routine will be found to be both expeditious and safe; the names, trades, &c. (as directed page 15), of the recruits for the day having been inscribed in the register, let them “fall

exactly that of a soldier under arms, with his eyes looking straight before him; when the slightest suspicion of fraud exists, he should be undressed before he is brought to the standard. But the best means of obviating deception in regard to height, is to measure a suspected person extended on his back. To ascertain whether, and how much, the horizontal length of a man exceeded his perpendicular height, I begged Mr. Maguire, the adjutant of this depot, to measure a number of men in both situations, with the same standard, and to note the result. He measured 52 individuals.

In 5 the horizontal length exceeded the perpendicular height four-eighths of an inch.

5 three-eighths.

13 two-eighths.

14 one-eighth.

15 No appreciable difference.

—
52

Being a mean difference of about three-sixteenths of an inch.

A very singular case of fraud, in regard to height, occurred here last summer. A young man, a recruit for the 4th dragoons, having been measured by the serjeant major, who is by no means a novice at that duty, was brought to me for inspection. As he had a large quantity of hair, I applied my hand to the head, by which means a hard body involved in hair, and surmounting the vertex, was discovered. He stated, that it had been placed there to defend an injury he had received. This assertion turned out to be without foundation, for when the *toupee* was removed, by cutting the hair close to the head, no trace of an injury could be perceived. It had been placed there to increase his height. The body consisted of a piece of light wood, which fitted upon the head like a saddle: it was covered with a coating of cobbler's wax, and the hair, which adhered firmly to it, was so disposed as to conceal the fraud very effectually from the sight. By means of this contrivance, he added apparently an inch and a quarter to his height, which was necessary to render him eligible for the above corps. The trick completely escaped the notice of the serjeant major.

in" and be inspected in their clothes. During this inspection we frequently succeed in detecting deserters, and men who have been in the army, and discharged in consequence of disease or disability.

Let them next be examined singly undressed. Upon entering the inspection room, each recruit is to walk a few times pretty smartly across the apartment, for the purpose of ascertaining that he has the perfect use of his inferior extremities. This is a very essential part of the business of inspection. Notwithstanding a rigorous observance of it, however, I have known a medical officer called upon to explain why he approved of a recruit, who, after joining the corps to which he belonged, did not perform the "goose step" to the entire satisfaction of his commanding officer. He is then to be halted, set up in the position of a soldier under arms, with the knees about an inch apart, and examined from head to foot. The inspection may be conducted with reference to the following qualities, or conditions of the body.

Colour.

Muscular capability.

General health.

The condition of the external surface, comprehending chronic eruptions, marks of punishment, ulcers, cicatrices, &c.

The configuration of the thorax, spine, and pelvis.

The condition of the superior extremities, comprehending symmetry, fractures, contractions, mutilations, &c.

The condition of the inferior extremities, including symmetry, &c. as also varicose veins, nodes, flatness of the soles of the feet, distorted and supernumerary toes.

Should no material defect be perceived during this survey, the examination should go on. The recruit is then to

perform, in imitation of the hospital sergeant, the following manual evolutions. To stretch out the arms at right angles with the trunk of the body, then touch the shoulders with the fingers, next place the backs of the hands together above the head; in this position let him cough, while at the same time the examiner's hand is applied to the rings of the external oblique muscles. Examine the spermatic chords and testes, then pass the hand over the bones of the legs. The recruit will next stand upon one foot, and move the ankle joint of each extremity alternately. And when any doubt is entertained, respecting the efficiency of the ankle joint, or any part of an inferior extremity, he should be made to test his strength in that respect by hopping upon the suspected limb for a short period, and the size and aspect of the corresponding joint or part of the opposite limb should also be accurately compared. Let him then extend the superior extremities forward, for the purpose of having his arms and hands examined; he is in this position to perform flexion and extension of the fingers, and to rotate the fore-arms. The head is next to be examined, including the ears, eyes, nose, mouth; then ascertain that he possesses the function of hearing, and the power of distinct utterance; next inquire whether he has passed through the small pox or been vaccinated. The examination of a recruit in this manner will require about five or six minutes; and if carefully performed, very few disqualified men will be admitted into the service.

No recruit ought to be examined while intoxicated; and country recruits should not be inspected the same day they arrive at the dépôt. The hair should be cut and the feet washed before examination. If it be discovered during the inspection, that a recruit had formerly been in the army, his case should not be determined until he produce his "discharge" or "instructions," by which the cause of his leaving the service may be ascertained. It is not by

any means an uncommon circumstance for men to enlist, who have been discharged but very lately from the service, in consequence of disabilities or defects, sometimes without and at other times with pensions of six pence and even nine pence a day; in general the assigned disability appears to have been substantial, in others only feigned. One instance may be particularized, which affords a striking example, how much an unprincipled impostor may achieve, in spite of medical skill and medical boards. James M'Faul, a native of the county of Galway, Ireland, enlisted for the East India Company's service, August 26, 1821, and was approved in Dublin. Shortly after joining the dépôt in Chatham, he became incapable of doing his duty in consequence of deafness: after some time the case was referred to the decision of a board of medical officers at Fort Pitt, where he was convicted of being an impostor. On the 21st December, 1821, he embarked for Bombay with a detachment of recruits. He had not been long in India before his old complaint, deafness, returned, and on account of this assumed defect he was discharged and sent back to this country. He was again approved in Dublin as a recruit for the 13th light dragoons, on the 20th December, 1824; and soon after joined the cavalry dépôt at Maidstone. He soon found his way to the hospital on account of his former infirmity, and on the 27th April, 1826, was discharged from the service at the recommendation of a medical board held at Fort Pitt, "in consequence of chronic pains in his limbs, which supervened upon a syphilitic affection, and deafness, which followed a slight cold with which he was affected," having been on the strength of the 13th dragoons for one year and one hundred and fifty days without performing a single day's duty. He enlisted again at Dublin, for the Company's service, on the 27th of May, 1826; and sailed for the presidency of Madras on the 12th of September of the same year.

Recruits who have been formerly in the service will occasionally, with a candour approaching to impertinence, relate the means by which they allege they succeeded in obtaining their discharge, apparently with the hope of thereby convincing the surgeon, that no real infirmity exists or ever did exist*.

The physiognomical characters of a well-drilled soldier are commonly easily recognized; his posture is generally upright, both when he is in motion and at rest. His chest is full, partly from an elevation of the sternum, and partly from a greater development of the pectoral muscles; the shoulders are drawn back, and the scapulæ nearly approach each other. There is however a slouching manner commonly assumed by an old soldier, when he wishes to conceal that he had formerly been in the army, but it disappears in a great measure when he is desired to walk, and if the word "halt" be given, the influence of discipline becomes more evident.

If after a recruit has been approved, it be ascertained

* Men who have been discharged from the service on account of an infirmity, ought to be examined with particular care. Vide the following letter from the deputy adjutant general.

SIR;

Horse Guards, 3d August, 1813.

"In reference to my letter of the 11th June last, I am directed by the Commander in Chief to signify, that a legal opinion has been since taken on the subject, and that an out pensioner is considered at liberty to re-enlist, and to be entitled to the usual bounty, forfeiting in the case of his re-enlisting his claim to pension for former service.

"It appears essential that men, who have been discharged as unfit for active service, should be examined with *peculiar attention* previous to their readmission, as a recurrence of their disability would subject the public to expense without adequate advantage.

I have, &c.

(Signed)

R. DARLING, D. A. G.

The Adjutant General,
&c. &c. Dublin.

that he labours under some disability, or should even the suspicion of any material defect be entertained, no time should be lost in reporting the circumstance to the proper authorities, that he may be examined and his case decided upon by a medical board.

The following observations are chiefly intended to point out the objects to which a medical officer should direct his attention in the examination of recruits, without presuming to dictate the result. The question of fitness or unfitness of a recruit must be determined by the discretion and experience of the person who inspects him; for no rules can be framed so as to meet the object intended, namely, to prevent inefficient men from being admitted into the army, and at the same time to reject no recruit who does not suffer under some decided disqualification.

Colour.—The slightest mixture of colour disqualifies a man for the East India Company's service. An example happened very lately, where a recruit who had been approved in this district was rejected on that account at the Company's depôt, Chatham, although the black shade was scarcely perceptible. I am not aware of a similar instance having occurred in his Majesty's service, nor have I heard of the promulgation of any regulation on the subject.

Muscular capability.—Boys, who have grown rapidly, are sometimes unfit for the service, in consequence of not possessing adequate strength for the performance of military duties. A rapid growth is commonly attended with debility, and is sometimes a precursor of phthisis: but persons of this description are to be distinguished from lean, unfilled-up, half-starved, scraggy lads, who make excellent soldiers.

General health and prospective efficiency.—According to the usages of the service, a medical officer is not warranted in considering either extreme youth or advanced age as disqualifying defects. His business is to approve of

persons who are free from physical deformities, who enjoy good health with a sound constitution, and to reject those individuals whose health seems to be infirm, limbs unsound, or who appear to be predisposed to disease. The leading external characters of a good constitution may be briefly enumerated: a tolerably just proportion between the different parts of the trunk and members, a well-shaped head, thick hair, a countenance expressive of health, with a lively eye, skin not too white, lips red, teeth white and in good condition, voice strong, skin firm, chest well formed, belly lank, parts of generation well developed, limbs muscular, feet arched, and of a moderate length, hands large.

Many persons inheriting from birth a feebleness of constitution and a predisposition to disease, are unfit for the fatigue incident to a military life, and are seldom out of hospital if they belong to the army. The reverse of the characters of a good constitution already enumerated will indicate infirm health, or a weakly habit of body; as also meagreness or great extenuation, loose flabby white skin, long cylindrical neck, long flat feet, very fair complexion, fine hair, wan sallow countenance, paleness of the inside of the mouth, tongue whitish, soft, or shining like varnished leather, weak shrill voice, fetid breath, hurried or laborious breathing, traces of numerous leech bites on the body, cicatrices of ulcers on different parts of the body, indicative of scrofula or some constitutional affection, face tawny or sunburnt*.

* When a recruit is above twenty-two or twenty-three years of age, and has a sun-burnt face and the manner of a soldier, suspicions are commonly entertained that he had formerly belonged to a regiment serving in a hot climate, and that he has been discharged on account of impaired health. These suspicions are sometimes confirmed by searching his clothes, and discovering a discharge in his pocket. The texture of a shirt sometimes leads to the detection of an invalid recruit, in consequence of the difficulty he finds in accounting for having one of Indian manufacture.

There are many men, who, although they have no apparent disease, or any well-characterized physical defect, will make but indifferent or bad soldiers; and the power of recognizing such individuals is a talent which is greatly improved by practice. If a recruit does not possess the health and strength of constitution calculated to enable him equally with his comrades to endure and surmount the fatigue and disheartening influence which attend his initiation into the army, he loses that active fortitude required to fit him to bear up against difficulties, and falls into a pensive, gloomy state of mind, which is soon followed by deteriorated health; he loses his appetite, becomes emaciated, a slight cough supervenes, terminating, after frequent admission into hospital, in organic disease of the lungs, and he expires by the time he has been twelve or eighteen months in the army.

There is a very objectionable description of recruits often met with in large cities, namely, young men whose health has suffered from debauchery of various kinds. Their peculiar appearance is commonly well marked; complexion wan and colourless, doughy sodden look, tremulous lips and hands, clean teeth, breath, and smell peculiar to spirit drinkers; often fulness of the belly and tendency to fatness; their manners and language of the better kind; this class is usually composed of footmen out of place, clerks, shopmen, broken tradesmen, profligate irreclaimable sons of gentlemen, &c. &c. I know no species of recruits more unfit for the service: they are seldom out of the guard-room or the hospital.

Marks of punishment.—The rule to reject recruits on this account is absolute, and I presume it applies to corporal punishment in a general sense, whether on the back or breech, not merely to military flogging. Deserters are, however, readmitted into the service, or rather they are not discharged from it, although they bear the marks of punish-

ment. Among the recruits raised and approved in the country, a few sometimes bear the marks of flogging. When the examiner notices the cicatrix, and inquires how it was produced, he is generally informed that it was caused by the application of hot liquor while a child, or that it is the result of a blister; and if the cicatrix be on the breech, it is also attributed to a blister, which had been put on the back and slipped downwards during the night. These assertions are too often credited. The diagonal direction of a cicatrix occasioned by a cat-o'-nine-tails, and the circumstance that it is more evident on the left than on the right shoulder, will in general easily distinguish it from the result of the application of a blister or hot fluid.

In addition to flogging, or some other punishment, courts martial occasionally adjudge a deserter to be marked with the letter **D** on the skin of the left side below the armpit with cuts or gunpowder, so as to be conspicuous, and not liable to be obliterated. This mark is frequently scarcely visible, even without any attempt to efface it; so that a man thus stigmatized may escape detection, if he happens not to have been punished with the cat-o'-nine-tails. Commonly, however, this mark is nearly obliterated by artificial ulceration, and when observed, the individuals generally assert that it was made by a priest, and that it is the initial letter of the word *Jesus*.

Ulcers.—Ulcers, buboes, and indeed all ailments that require medical treatment, render a recruit ineligible. Plaisters, however small, should be removed from the skin: they are sometimes employed to cover a mark of the letter **D**. To conceal gonorrhoea, cobbler's wax is sometimes introduced into the urethra.

Cicatrices.—Scars on the neck, being in general presumed to be traces of strumous ulceration, are commonly deemed a disqualifying defect; but whether they should invariably cause a recruit to be rejected, particularly after

he has attained the age of manhood, may admit of some doubt. To conceal scars on the fore part of the neck, recruits bring the chin close to the neck, and sometimes the whiskers are allowed to grow for the purpose of hiding a defect of this kind. In the same manner I have seen a cicatrix resulting from an unsuccessful attempt to commit suicide, by cutting the throat, temporarily concealed. Cicatrices of frequent venesection, setons, cupping, and numerous blisters, are all objects of attention, being indicative of previous indisposition. We sometimes detect men, who have served in India, and who have been discharged from the service on account of ill health, by traces of numerous leech-bites on the body. Cicatrices on the legs, if they adhere to the bone, and particularly if they are surrounded by discoloured and diseased integuments, with a puffiness of the limb, render a recruit unfit. Attempts are sometimes made to conceal cicatrices by covering them with paint.

Symmetry.—Perfect symmetry of the human body may be said never to exist. In almost every individual, a want of harmony in some part or other is discoverable. There is often great want of symmetry between the trunk and inferior extremities, the former being full in proportion to the latter, and vice versa. Even the lateral sections of the body are often disproportioned in size, and not strictly similar in form.

Thorax.—The formation of this part of the body differs considerably in different individuals. The more common deviations from a symmetrical formation of the chest may be comprehended under five varieties. In the first variety the sternum is short and straight. 2. The thorax is flat, the ribs having very little arch, and the sternal diameter of the cavity small. 3. The transverse diameter of the thorax is comparatively small, and the sternum protrudes, giving the chest a keel-shaped

appearance, "chicken breasted." 4. The convexity of the curve of the ribs is turned inwards, "depressed sternum." In the fifth and last variety the cavity of the thorax is defective in amplitude, but without deformity, the chest being less developed than the other parts of the body, a defect in some degree common to all the other varieties.

Persons of great physical strength, or who can endure much fatigue, have almost invariably full capacious chests. In cases where the thoracic organs are comparatively little developed, it may be conceived that the requisite degree of vigour will not be imparted to the extremities; and should a person whose thorax is small and his limbs bulky exert himself greatly, the lungs may become disposed to congestion and to some varieties of phthisis. Perhaps the prevailing opinion, that a "contracted chest" is symptomatic of a predisposition to consumption, arises rather from the disproportionately small size of the thoracic viscera than from any particular formation of that part of the body.

In cases where the cavity of the thorax is diminished by curvature of the spine, the incapacity of a recruit is evident. With the view of ascertaining the condition of the lungs in regard to health, some army medical officers have recommended the use of the stethoscope. The soundness of the lungs is sometimes tested also by observing how many seconds a man can suspend inspiration. This is attempted to be ascertained by desiring the person under trial to inspire fully, and during expiration to reckon slowly and audibly a series of numbers, as 1, 2, 3, &c. without allowing himself to take another inspiration. The time he is able to continue counting, or rather to interrupt inspiration, is observed by a watch; and in proportion to the integrity of the lungs is the extent of this period. Healthy individuals can suspend inspiration during a space of time extending from twenty-five to thirty-five seconds, while

persons suffering under some affections of the thorax are unable to interrupt it for half that period*. The utility of this test would be more satisfactory if the function of respiration were less under the influence of the will.

Instances occasionally occur, where the lower angles of the scapula are found "projecting like wings," a species of defect, which, if it exist to a considerable degree, might tend to render the carrying of military accoutrements painful and harassing. In some rare instances, only one scapula projects.

Spine.—The relative proportion of the extent of the natural curvature of the spine, as also the degree of inflexion of the curves, vary much in different individuals. The second, or middle curve, in particular, is often found greatly bent in men who possess sound health and powerful muscular capability, constituting what is called round-shouldered: this is often seen in young recruits, arising, as they generally and with much probability allege, from the practice of carrying heavy loads on the back or shoulder.

The spine is frequently found inflected laterally, sometimes in one flexure extending from the loins to the neck, and at other times in two, the spinal column having then a sigmoid shape. When there exists only one flexure, the convexity of which is on the left side, the left shoulder appears to be high, the right hip large, and, if the hands be placed close to the thighs, we can see between the right side and arm, but not between the left side and left arm. This state of the spine may be ascertained by viewing the body in front, as the sternum and linea alba have a curve corresponding with that of the vertebral column. In many cases the lateral flexure of the spine may be ascribed to a shortness of the inferior extremity on the convex side of the curve, which is rendered evident by placing a body equal to the difference in length under that extremity, when the

* Edinburgh Medical and Surgical Journal, vol. xxviii, p. 453.

spinal column will in general become straight. Even in cases where the difference of the length of the limbs is more than an inch, no halt can be discovered in walking, and no defect is commonly perceptible in the muscularity and efficiency of the short extremity. Sometimes the convexity of the curve of the spine is on the right side, and sometimes on the left. Were an individual, whose right or left inferior extremity is shorter than the other, examined without uncovering the lower part of the body, it might be inferred, that the original defect lay in the vertebral column, and that it was the result of disease. From a presumption that lateral inflexions of the spine constituted a disqualifying defect, I have known young, active, and vigorous recruits rejected, although they were admitted to be unexceptionable in every other respect.

Among the requisite elements of the human form, figure, and structure, in regard to symmetry, the relative length of the spine when compared with the lower limbs is one of some importance. Long backed persons with short legs (short in the fork) are not good walkers, a defect which is easily accounted for upon mechanical principles. This form is therefore unfavourable for the infantry, but it is still more so for cavalry. A dragoon with a short fork has neither a secure nor a graceful seat on horseback. He never makes so good a horseman as a well-proportioned man.

Pelvis.—This part of the body is occasionally found to possess a much greater amplitude on one side than on the other, varying from one to two inches, without appearing to affect the efficiency of the individual in the slightest degree.

Superior Extremities.—More symmetry is commonly found between the lateral sections of the body than between the superior and inferior parts of the system. The right arm is generally thicker than the left, but no superiority in this respect seems to obtain in the right over the left infe-

rior extremity*. Even when the difference of equilibrium between the arms is considerable, there seems to be no remarkable inferiority of power in the smaller arm, or any want of efficiency in the individual.

Fractures.—Due care should be always taken to ascertain that the long bones are sound, and the functions of

* Abstract of the measurement of the arms and legs of one hundred recruits, which was made with the view of ascertaining the relative equilibrium of the extremities. The arms were measured about equal distances from the shoulder and the elbow, and the legs round the thickest part.

	Right arm thicker than left.	Left thicker than right.	No dif- ference.	Total.
Right-handed individuals	68	5	18	91
Left-handed	1	6	2	9
				<hr/> 100

Of the 68 right-handed individuals, whose right arms were thicker than the left, the superior size was,

In 8	six-eighths of an inch.
2	five-eighths.
18	four-eighths.
9	three-eighths.
30	two-eighths.
1	one-eighth.
<hr/> 68	

The disproportion of the superior extremities seemed to be fully as remarkable among youths as among persons further advanced in life, and who, of course, had applied themselves longer in the exercise of particular trades.

Fifty-three of the right-handed recruits, whose right arms were thicker than the left, had not exceeded nineteen years of age; and of this number the difference of equilibrium was as under stated.

In 7	six-eighths of an inch.
2	five-eighths.
12	four-eighths.
9	three-eighths.
23	two-eighths.
<hr/> 53	

The relative difference in the legs was as follows:—

the joints unimpaired. Dr. Thomas Brown, staff-surgeon, met with a recruit, who performed satisfactorily all the evolutions to which recruits are commonly subjected, although he had a disunited fracture of the radius and ulna of the right arm. Fractures, if well united, are not commonly disqualifying defects, although perhaps a fractured clavicle should render a man in general unfit.

Contractions.—A lesion of the functions of the larger joints, as the shoulder or elbow, is an important defect. We frequently, however, find slight contractions of the fingers, which do not disqualify a recruit. Sometimes these contractions arise from injuries of the tendons, but much more frequently from chronic inflammation of the thecæ and aponeurosis of the palm of the hand; excited by the exercise of particular employments, as delving, hammering, ploughing, &c.

Mutilations.—By the French code, a conscript cannot obtain a complete exemption from service on account of the mutilation of any finger but the thumb. According to the existing regulations, a medical officer would probably not think himself warranted in approving of a recruit who had lost any finger. I have known a district surgeon called upon to explain why he approved of a recruit, who (according to the report forwarded from the Horse Guards) “ had

No.	Right leg thicker.	Left ditto.	No difference.
100	In 1 six-eighths.	In 1 one inch.	28
	2 five-eighths.	1 five-eighths.	
	9 four-eighths.	12 four-eighths.	
	3 three-eighths.	2 three-eighths.	
	17 two-eighths.	21 two-eighths.	
	3 one-eighth.	—	
	<hr/> 35	37	

In these men there did not appear to be any relation between a superior bulk of the right arm and a corresponding condition of the right leg, for of the 68 whose right arms had a larger circumference than the left, the right leg was thicker in 25, the left in 29, and no difference was found in 14.

lost the first joint of the middle finger of the left hand, otherwise good-looking and fit for service."

Inferior Extremities.—Frequent instances occur among recruits, where one inferior extremity is from half to three-fourths of an inch thicker than the other, the functions of the smaller limb remaining unimpaired. This condition of an extremity is to be carefully distinguished from atrophy, characterized by flabbiness of the muscles and diminished power.

The deformity denominated in-kneed, when considerable, is an important defect. This malformation, when it occurs in boys (if not much greater in one side than the other), is generally out-grown, but when unequal it continues through life.

Varicose Veins.—Under this denomination three different conditions of the veins are sometimes confounded.

1st. A net-work of superficial blue veins, which is found on several parts of the body, but perhaps more frequently on the inferior extremities than on any other. 2dly, A large condition of the veins, but where the functions of the valves continue unimpaired. 3dly, A preternaturally dilated state of the veins of the inferior extremities, accompanied with a failure of the functions of the valves, when they assume the appearance of a chain of varicose cysts or bags. The limb whose veins are in this state is commonly somewhat enlarged; the cellular membrane indurated, and much disposed to ulcerate*.

* A greater proportion of recruits are rejected on account of varices of the legs in Scotland than in Ireland, as will appear by the following statement:—

From the 25th of March 1817, to the 31st December 1822, 4,369 recruits were inspected at *Edinburgh*, of which number 192 were rejected on account of varicose veins of the legs, *viz.*

Both legs	64
Right only	39
Left only.....	89

192 = 4.3 per cent.

Glasgow, from the 1st of January 1817 to the 20th of June,

The first and second varieties of this affection are of little importance, while the third is a serious defect.

Nodes.—We occasionally find inequalities on the shin bones, of whose history no satisfactory information can be obtained. As they occur in robust, healthy individuals, it may be presumed that they are often merely an anomalous formation, and not the result of syphilis or periostitis.

Flatness of the Soles of the Feet.—When the plantar arch is well formed, we stand on the heel (*os calcis*) and the distal extremities of the metatarsal bones. The concave shape of a well-formed foot is an admirable provision for defending the nerves and blood vessels, that ramify under the middle of the foot, the use of which is painfully demonstrated to us when we ascend a ladder with narrow steps, or tread upon a pointed body.

In splay-footed persons, where the sole is not merely flat, but in some degree convex, the tendons of the sole are elongated, accompanied with a subsidence of the bony arch, both in regard to the length and breadth of the foot, by which means the tarsus becomes the broadest part. The *os naviculare* projects, thereby producing a

1823, number inspected 5,755; rejected on account of varices 259, *viz.*

Both legs	42
Right only	90
Left only	127

259 = 4.5 per cent.

Dublin, during the years 1825 and 1826; number inspected 10,247.

Both legs	48
Right only.....	111
Left only	107

266 = 2.4 per cent.

convexity of the inside of the foot; the inner ankle nearly approaches the ground, and in a number of instances the internal malleolus projects much more than is natural. In some cases the limb is oblique, and the muscles on the back of the leg are commonly but little developed. Very long as well as flat feet commonly have a tendency outwards, seemingly to make up for their inability to grasp the ground by extending the base of support.

In the mechanism of walking, our feet become levers of the second order, which may be compared to the action of an oar in rowing a boat, the weight being situated between the power and the fulcrum. When the sole is convex (splay-footed) the fulcrum is, during progression, less distant from the power than in a well-arched foot, consequently the influence of the lever is proportionately diminished, and the natural spring of the foot impaired. The effect may be compared to that of rowing with a short instead of a long oar. In consequence of the weight of the body falling upon the centre of the sole, instead of the heel and the anterior extremities of the metatarsal bones, the play of the ankle joint and the other joints of the foot is nearly lost, on which account the other joints of the body are comparatively little used; hence almost all splay-footed persons carry the head and shoulders, as also the elbows, backwards, while the spine at the loins is commonly pushed forward. They move their feet smoothly along the ground (*scoofing*, Scotticè), with a general stiffness of the body, as if they were pushing a wheelbarrow before them. Let any person place a body under the arch of the foot, and try to walk with a stiff ankle, and he will easily comprehend the above description.

Splay-footed individuals are unable to endure easily the fatigue consequent on long marches; more labour being required from them to produce a certain effect than from

persons whose feet are well arched. In another respect they are disqualified for military service, on account of the lateral vacillations they make in walking. When a foot is well formed, the heel is first raised from the ground, and the body rests for the time on the fore part of the foot and toes. But when the sole is convex, the extremity partakes in some degree of the inaptitude of a wooden leg; and, owing to the inelasticity of the foot and the stiffness of the ankle joint, the body at each step describes a portion of a circle. In file marching, the irregular undulations of a man with deformed feet are liable to throw the rear of a line out of its proper direction.

The flattened state of the arch of the foot occurs in every possible degree; hence there are many shades of the deformity which do not disqualify a man for the service. In the examination of recruits due attention should be paid to distinguish these varieties, and particularly to avoid confounding uncommonly broad though tolerably well arched feet with those in which the soles are convex and the limbs oblique.

Flatness of the soles of the feet appears to be a congenital deformity, and prevails in particular families and races of people. Many tribes of Africans have generally flat feet with remarkably long heels. I have met with instances of a deformity of another kind, where the instep was very high, the plantar arch being remarkably acute, so much so, that the middle of the foot did not nearly approach the ground: this defect, which in some instances is a serious one, is the *pied-equin* of the French anatomists.

Distorted Toes.—Occasionally we find one or more of the toes of a foot thrown out of their natural direction, by a contraction of the flexor tendons and thecæ of the joints, the first and second phalanges being elevated, which causes

great irritation and uneasiness in walking, by the pressure of a shoe. When the great toe is incompletely dislocated, and drawn inwards, either under or over the second toe, (constituting the projection vulgarly denominated bunion) it is an important defect. The projection of the joint formed by the first metatarsal bone and the first phalanx of the great toe, is occasioned by an unusual separation of the anterior extremities of the first and second metatarsal bones of the foot, which is probably a result of the same cause that produced the distortion of the toe. *Superposition* of any of the toes is a great inconvenience to soldiers.

Deformity, or any disabling circumstance attending the feet, is a serious imperfection in a soldier. He becomes soon fatigued, and is unable to endure a long march; his feet are apt to swell, and to become inflamed and exco-riated.

Supernumerary Toes.—This is generally a disqualifying fault, soldiers being often placed in situations where shoes could not be procured suitable for deformed feet.

Hernia.—Three varieties of this defect are occasionally found upon examining recruits, namely, ventral, umbilical, and inguinal hernia. The first two are commonly slight, and rarely affect the efficiency of a recruit: inguinal hernia at once demonstrates his unfitness. Disposition to rupture from preternatural enlargement of the ring, or relaxed state of the parietes of the abdomen in the inguinal region, is not unfrequent, and often forms good ground for rejection.

Spermatic Chord.—This process differs considerably in thickness in different individuals, and even in the same person in opposite sides. Its veins are sometimes found varicose, a state of parts which may occasionally be discovered at a distance, the side of the scrotum appearing

like a bag of worms. It is remarkable that a varicose state of the veins of the chord is almost exclusively found on the left side; indeed, I do not recollect ever having seen an instance of the affection on the right. A medical friend of mine tells me, however, that he has it on the right side. It is sometimes much more evident in the same individual at one time than at another. I know a gentleman who has this affection when his bowels are constipated, and only then. The greater frequency of an affection of the blood-vessels of the left chord has not escaped the observation of several medical authors. Morgagni mentions the circumstance. Murray* notices it, and attributes it to the accumulation of feces in the sigmoid flexure of the colon, which, by pressure on the veins, interrupts the return of the blood by these vessels. Lisfranc, surgeon to the hospital La Pitie, has come to a similar conclusion†. He is of opinion, not only that cirsoceles, but that sarcocèles and hydrocèles are more frequent in the left than in the right testicle or side of the scrotum, and he states, that varices and ulcers are formed oftener on the left than on the right leg, from the same cause. By the returns of recruits rejected in Dublin, it does not appear that there is any material difference between the frequency of hydrocèles of the left testicle and varices of the left leg and of the opposite side. Vide Appendix, 1, 2, 3.

Testes.—These organs are very small in some individuals, occasionally not larger than horse beans in full grown men. The testicle of one side is sometimes considerably smaller than the other, without any appearance of disease. Not long since a recruit was approved at this dépôt, and subsequently rejected at the

* Murray de Cirsocele.

† Revue Medicale, vol. iv.

head-quarters of his corps, on account of the state of his left testicle, "which" (according to the report of the surgeon) "appears proceeding to a state of dissolution." This is certainly a very hypothetical cause for the rejection of a recruit; perhaps one testicle may have been a little smaller than the other, which is no unusual circumstance. In some individuals both testicles are not in the scrotum. During the examination of 10,800 recruits, I found five in whom the right, and six in whom the left, testicle was not apparent. In two of these cases there was inguinal hernia at the side where the testicle had not descended. *Hydrocele* and *sarcocoele* are decidedly disqualifying infirmities.

Cranium.—Severe injuries of the skull always render a recruit unfit for the service. A defect of this nature may be concealed by long hair; hence the propriety of having it cut before examination. Wigs are sometimes employed to conceal fractures of the skull and *tinea capitis*; and I know, from having committed mistakes in this respect, that it is quite necessary to apply the fingers to the cranium when the hair is long, or the recruit very tall.

Ears.—A recruit is ineligible when he suffers under a defect of the function of hearing, however slight, whether with or without discharge from the external meatus. But some persons are liable to a puriform discharge for a little time, as a concomitant of catarrh, unaccompanied with any functional lesion.

Eyes.—These organs differ in different individuals in the transparency of the cornea, the lustre and mobility of the iris, and the blackness and size of the pupil. In some persons an increase of light seems to have scarcely any influence on the iris. The eyes of the same person also are sometimes different, particularly in the size and shape of the pupils, which are occasionally not round, but in some degree oval. Defects in the function of

vision commonly arise from a morbid condition of the cornea, iris, lens, or retina.

Cornea.—The defects more commonly found in this part of the eye are a general haziness, and specks, caused by the deposition of lymph, or the cicatrices of ulcers. Opaque specks generally cause a recruit to be rejected at primary examinations; and on this account the service loses a number of active young men.

Iris.—The aperture in this membrane is sometimes closed.

Lens.—An opacity of the lens requires no remark.

Retina.—Amaurosis, or an insensibility of the retina to the influence of light, is commonly indicated by a dilated pupil and immobility of the iris, but these symptoms are not always present in this affection. In some cases of amaurosis affecting one eye, the iris may be made to move by the influence of light upon the other, so that a recruit may be approved with a defective eye, although the ordinary degree of care has been taken in his examination.

Nose.—In regard to this organ, it is requisite to ascertain that the nostrils are not obstructed by polypi, and that the Schneiderian membrane is free from disease. The right nostril is sometimes larger than the left, and occasionally the superior turbinated bone of that side projects so as to be easily seen, and has been mistaken by inexperienced examiners for a polypus*.

* I may here advert to another presumed defect, namely, disease of the cervical vertebræ. When the thyroid cartilage is moved over the bodies of these vertebræ, a grating sensation is produced, a circumstance that has been supposed to indicate disease. I have known this fictitious affection included among the causes for invaliding a soldier. An eminent physician, who was attending a case of fever in a public hospital, happened by accident to touch the thyroid cartilage of his patient, and thereby produced the grating sensation; it was instantly inferred that the bodies of the vertebræ

Mouth.—By the French code, “stinking breath from an incurable cause” disqualifies a conscript, which is a very indefinite cause of rejection. The mouth is examined for the purpose of ascertaining that there are no ulcers in the throat, palate, &c. that the tonsils are not excessively large, and that a great many teeth have not been lost*. Even in the inspection of this part of the body, we must expect to meet with attempts to deceive. Not long since, a recruit presented himself at this dépôt with an artificial palate; and I have known one attempt to dissimulate the loss of nearly all the teeth of the lower jaw, by the aid of a dentist. Recruits often endeavour to conceal the “loss of many teeth,” by covering the gums with the lips.

Speech.—Indistinct utterance is frequently feigned, but stuttering or hesitation of speech is very difficult to dissimulate. Some stammerers can utter a few short sentences in succession without any well-marked hesitation, so that their defect might escape notice.

Mental Faculties.—To obtain the requisite information on this point, it will in general only be necessary to ask a recruit a few short questions, such as what corps he belongs to, what occupation he previously followed, or the amount of wages he usually earned: but notwithstanding considerable care we may be deceived, and form an erroneous opinion.

DESERTERS.

During the year 1818, an order was issued by the Commander of the forces in Ireland, directing officers in command of districts to cause all “persons who may surrender themselves or be sworn in by others as deserters,”

were diseased, and a seton forthwith ordered to be inserted in the fore part of the neck.

* I have met with a few instances where the *uvula* was double: this is however a very rare anomalous formation.

“to be medically examined,” and to transmit the certificate of the medical officer direct to the office of the adjutant general. Deserters who are taken by police officers and others are also examined; and unless a certificate of fitness be brought along with the man to a magistrate, he will not authorize the issuing of the usual reward. The rules to be observed for the examination of recruits do not, I presume, apply to the inspection of deserters. Hitherto it has been the usage for medical officers not to return a deserter “unfit” for military duty, unless he suffer from some serious disqualifying defect, such, for instance, as would render it necessary to discharge a soldier from the service. Were a similar degree of strictness observed in certifying with regard to the fitness of deserters, that obtains in respect to recruits, many a soldier, who knew that he had some blemish, or if he had not a spontaneous defect he might feign or excite one, would desert, in the hope of being returned unfit for the service by a medical officer when he was pleased to surrender himself, and thereby obtain a protecting certificate from the adjutant general. And this opinion is corroborated by the circumstance, that, by the last proclamation of this kind, no deserter returned “fit” by a surgeon was to be discharged, unless he was under five feet four inches in height, or above forty years of age.

In consequence of the last proclamation, eight hundred and eighteen deserters surrendered themselves at this depôt, and some individuals confessed that they had deserted from six or eight regiments; one had absconded from thirteen.

Remarks and Observations.

The column under this head in the “Register for Recruits” ought to be ample, for the purpose of affording space to record incidental facts, more especially the causes on account of which a recruit is rejected. When a man is approved who happens to have

a blemish, which sometimes occurs, provided it is not of "a serious extent, nor affecting his efficiency," the defect should invariably be noticed. This measure enables a medical officer to render a satisfactory reply, should he be called upon to explain why he approved of a particular individual, of whom some suspicion of inefficiency is entertained. Occasionally instances occur, when it appears to be useful to inform the surgeon, or assistant surgeon, of the corps to which a recruit belongs, of some circumstance respecting him, such, for instance, as that he has a trivial defect, but that it has been observed and considered not of material importance, or that he had been endeavouring to simulate disabilities, &c. &c. As a simple means of conveying this information, I have been in the habit of transcribing my remarks on such cases on their attestation; and I beg to recommend the adoption of this plan to individuals whose duty it is, or who may be called upon to intermediately examine recruits. By attaching a small piece of paper to the attestation a good opportunity is afforded for making the requisite observations.

CLASS II. *Infirmities or defects not obvious, chiefly internal.*

Chronic affection of the liver.

Nephritic complaints.

Liability to rheumatism.

Occasional hemoptysis.

Incipient phthisis.

Vertigo.

Frequent headach.

Dyspepsia.

Many men have been discharged from the service in consequence of real or simulated affections of the stomach.

Epilepsy.

Palpitation.

Many recruits during examination feel so much agitated from the novelty of their situation, that the motions of the heart become greatly increased. Under such circumstances I have found the pulsations of the blood-vessels one hundred and thirty in a minute, while in the same individual, after the agitation had subsided, they were not above eighty. The difference between a temporarily increased action of the heart, and a permanent irregularity of the functions of that organ, is not always so easily discriminated as to warrant a final decision during an examination of a few minutes. Where any doubts exist, the safest plan is to suspend a determination regarding the fitness or unfitness of a recruit for ten or fifteen minutes, by which time a temporary agitation will have become greatly moderated.

Periodic asthma.

Fatuity, Imbecility.

Some men labour under such a debility or obtuseness of the mental faculties that no art can make soldiers of them; and yet their replies, conversation, and countenance, will evince no want of comprehension. A single examination will not always be sufficient to detect practical idiots of this kind. They are, however, commonly soon discovered in a barrack-room among their comrades.

Short-sightedness.

Night-blindness.

Confusion of vision (false sight).

Stricture of œsophagus.

Stone in the bladder.

Stricture of the urethra.

Frequent retention of urine.

Incontinence of urine.

Catarrhus vesicæ.

Occasional prolapsus ani.

To the above list, a number of other defects of a similar nature might be added. Many of these infirmities possess no permanent external mark of their existence, and consequently may be dissimulated, or escape observation, during the short period a recruit is under examination.

CLASS III. *Feigned Defects.*

The simulation of infirmities is much practised by recruits, although it is a species of fraud which is by no means confined to young soldiers. Recruits rarely enlist in consequence of a deliberate preference of a military life, but commonly on account of some domestic broil, or from a boyish fancy, sometimes from want of work, and its immediate result, great indigence. Perhaps nine-tenths of the recruits regret the step they have taken, and are willing to practise any fraud, or adopt any means which promises to restore them to liberty and the society of their former acquaintance. This disposition is very prevalent among the recruits raised in the country, who are brought to the depôt of a district for examination, and subsequently to be transferred to their respective corps. Some excite ulcers, others affect *stammering, deformity, pain in various parts of the body, deafness, blindness, epilepsy, contractions of the fingers, lameness, &c.* Some of these simulators display considerable art in carrying fraudulent plans into execution, and arrange their assumed defects so as to have them in tolerably good keeping. Fraud of this kind is however commonly associated with an anxious, pensive countenance, indicative of great reluctance on the part of individuals to comply with the orders they receive. An expression of gloom in the countenance awakens suspicion, and therefore frequently contributes to the detection of impostors.

We sometimes meet with individuals, who refuse to move an arm or a leg, and assert that they have lost the power of motion in the limb, or affect want of comprehension of what is

said to them. It is hardly necessary to observe, that the country recruits have all, upon being attested, declared before a magistrate that they were not "troubled with fits, and no way disabled by lameness, deafness, or otherwise." To obviate this disposition to fraud, a medical officer is under the necessity of presuming that a recruit is free from a disabling infirmity, when no sensible appearance proves its existence, whatever assertions may be made to the contrary. In general the irksomeness of a military life wears off, and young soldiers become less anxious to revisit their relations: until, however, they have acquired a perfect knowledge of their duty, and become familiarized in a corps, their attachment to a military profession cannot be great, and should not be calculated upon. Many recruits, who in consequence of disgust with the service during the period of hard drill, evince a disposition to simulate ailments, or to aggravate trifling defects, become, by mild and humane treatment, excellent soldiers*.

* A recruit, when he finds himself among strangers whose habits are very different from his own, is liable to become unhappy and low-spirited. He broods over the inconveniences attending his new mode of life; and as he has no friend with whom he can communicate respecting the causes of his unhappiness, and by that means divide his cares, he becomes gloomy and discontented, his health frequently suffers, he is unfit to endure fatigue, indeed a very moderate degree of exercise exhausts his strength. Sometimes, however, as stated in the text, he endeavours to regain his liberty by feigning disabilities, &c.

Too much care cannot be taken both by military and medical officers, to make young soldiers fond of their profession. For this purpose they ought to be treated with a due degree of respect, their condition should be rendered as comfortable as strict discipline and circumstances will permit; they ought never to be tormented with useless innovations, or exposed to unnecessary fatigue; every engagement or promise made to them ought to be rigorously observed. Correct discipline should if possible be preserved without the adoption of measures that may be denominated severe, or that have a ten-

The natives of Ireland are, I believe, more disposed to feign disabilities than those of England or Scotland. Dr. Davies, surgeon to the Hononrable East India Company's depôt, Chatham, informs me, that most of those recruits who feign diseases, either to avoid duty or to get quit of the service, are natives of Ireland, and from that class of Irish whom *a priori* one would consider should be the most happy and content in it, *viz.* the poorer class of labourers.

There is a much greater proportion of malingerers in some regiments than in others, a difference which may perhaps in part depend upon the discipline of a corps, the conduct and general demeanour of soldiers being greatly influenced by the nature of the discipline under which they are controlled. But with regard to the simulators of disease or disabilities, I am disposed to think that they never become numerous in a regiment, when the surgeon possesses experience, and that peculiar tact which enables him not only to detect malingerers, but so to adapt the means to the end as to induce them to give in. Soldiers soon form an opinion of *the ability* of their medical attendant in this respect, and seldom attempt to deceive, unless they think their artifice will succeed. This tact does not depend upon severity; for the most efficient surgeon will often doubt without expressing his suspicions, and seem to be the dupe of a schemer, that he may become his master.

dency to humiliate or degrade a man in his own opinion or that of his comrades. While breaches of discipline are punished, good conduct ought never to pass unnoticed. Implicit confidence should rarely be placed in non-commissioned officers with regard to their conduct to the men. Young soldiers are commonly unwilling to prefer complaints, but when they do they deserve a patient hearing. A commissioned officer should himself ascertain that strict justice is given to a recruit in every thing connected with his barrack accommodation, food, and pay.

In considering the subject of counterfeit diseases or disabilities, the following objects come naturally under consideration.

1. What are the means most likely to be successful in discovering whether an alleged disease be real or feigned?

2. When a malingerer has been detected, or, in other words, when it is after due consideration presumed that a disease is feigned, what are the most probable means for inducing him to return to his duty, or for convicting him?

Feigned infirmities are generally referable to three heads, or classes, namely, pretended, simulated, and excited disabilities; which last are for the most part external, although not always so. Diseases are feigned for a variety of purposes, and the character of the assumed disability is calculated to suit the occasion. If a soldier wishes to escape or delay punishment, to evade duty of any kind, more especially that of embarking for foreign service, he simulates an acute disease. If, however, his design be to obtain a discharge, with or without a pension, he feigns an infirmity of another class, one which possesses a chronic incurable character, calculated, if possible, to excite commiseration and pity.

The veracity of the testimony of a soldier may be suspected when he affects an obscure disease; if it be discovered that he dislikes a particular duty to which he is liable, or that he is disgusted with the service; as also when the supervention of the disease is not after the usual manner; when he has an aversion to take his medicine, or evinces an excessive anxiety to adopt some means of recovery; when incompatible symptoms occur, and the progress of the disease is not according to the ordinary course; and when medicines are reported not to be followed by their usual effects.

It is difficult to conceive a more irksome and unsatis-

factory duty than to have the care of a number of soldiers, who complain of uneasy sensations without any external mark of disease, or visible disorder of the functions, and where testimony is liable to suspicion. Under such circumstances, it is not always easy to preserve a just medium between too much incredulity and too great a disregard to testimony. I know well, that it is much more difficult to ascertain whether or not a disease really exists, than to prescribe an appropriate remedy. In a regimental hospital, the practice of simulating diseases can rarely be carried to any great extent, where due care is exercised; but in general hospitals it is impossible to prevent much fraud of this kind, and I believe it to be more frequently than is commonly supposed.

Soldiers are more apt to feign defects about the period of their becoming entitled to a claim for a pension, on account of having completed certain periods of service, than at any other time, and men thus circumstanced require to be closely watched. Until lately, a fund existed in several of the heavy dragoon regiments, from which a man, who had subscribed to it for eighteen years, was entitled to receive an allowance of one shilling daily, provided he was discharged from the corps on account of impaired health. This pension acted as a premium for fraud; numerous and flagrant instances of imposition, many of which were successful, occurred in these corps; and on that account I believe the measure has been abandoned in all the regiments in which it was established.

It would, I believe, serve no useful purpose to attempt to draw up specific rules for detecting impostors. Each individual case will require to be considered by itself, in all its relations; and according to the conclusions formed, the subsequent measures must be regulated. In all doubtful cases, a medical officer ought to conduct the examina-

tion in a scientific manner, and to compare the result of his inquiries with his own knowledge of the disease in question, and the descriptions given by the best authors on the subject. The investigation may be conducted with reference to the causes, history, and symptoms of the patient's disability, and the effects of the medicines exhibited. Useful inferences may be likewise drawn from a man's character, his conduct in hospital, &c. We should also carefully endeavour to ascertain his motives. Even the countenance, gestures, and voice in a suspected case ought not to be overlooked. The leading requisites therefore of a medical officer, who has to encounter feigned disease, are an accurate acquaintance with the physiology and pathology of the human body, and an intimate knowledge of the duties and habits, good and bad qualities of soldiers.

In the great majority of instances, an impostor cannot long conceal his deception from a careful and experienced observer. Some tricks indeed are so plain as not to be capable of deluding a person unless he wishes to be deceived; such for instance as that of a recruit of the name of O'Donel, 39th regiment, who, upon joining the Cork depôt, after having been approved in the country, kept his hands clenched, and insisted that the defect had supervened during a fever, and that it was of several years standing, although the palm of his hand had a corneous hardness, evidently the result of recent hard labour. That variety of fraud, where a certain degree of disease or disability really exists, but which is aggravated by simulation, is infinitely more difficult of detection than where the defect is wholly pretended; and among old soldiers, complicated cases of this kind occur much oftener than those that are of a simple nature.

To estimate what degree of disease actually exists, and how much of the assumed disability is only pretended, is

often attended with considerable difficulty. In such cases truth and fraud are often intimately combined, forming a compound so fallacious as to render it almost impossible to disentangle the one from the other. Many of the invalids transferred from regiments to the general military hospitals at Chatham and Dublin are of this class. A conscientious medical officer, who happens to have detected a number of impostors, is frequently afraid he may be misled by his suspicions, so as to presume that real disease has little or no foundation; and in this respect the most cautious and best informed have been deceived in their conclusions*. A gentleman informed me, that when he was prosecuting his studies at Edinburgh, a man was admitted into the Royal Infirmary, and placed under the care of the late Dr. Gregory. After carefully examining his patient, the doctor was impressed with the opinion that the complaints were feigned, and, under the influence of this presumption, ordered an extensive blister to be applied to the abdomen, with the view of disgusting him with the hospital. By the next visit the man had expired. The doctor made no attempt to apologize for his misconception of the case; but, with the candour of a great mind, admitted that he had deceived himself by discrediting testimony, and took advantage of the opportunity to address the students

* "Even after the most dispassionate consideration, our conclusions will sometimes be erroneous, of which I could bring forward a multitude of instances. Affections of the brain, of the thorax, of the abdomen, diseases of the hip-joint, of which I have heard of several supposed at first to be feigned, eventually proving genuine, and leading to death or incurable disease. Such have shown me the propriety of proceeding regularly and deliberately in every case, how much soever appearances may be against any individual who has reported himself sick."—Dr. Cheyne's letter to Dr. Renny, Dublin Hospital Reports, vol. iv.

at some length, on the frequent uncertainty of the signs of health and disease. The greatest discretion is at all times required where presumption or probability, often the only evidence afforded by medical science, points one way, and testimony another. Incredulity may lead to erroneous conclusions, as well as great easiness of belief: cases sometimes occur where there is no great discredit in being imposed upon. Baron Percy, inspector general of the medical staff of the French army, who perhaps had more experience in the detection of feigned disease than any person ever possessed, admits that he was completely deceived in the case of a soldier, who affected not to be able to stand erect. This man walked with his back bent, and resisted for a whole year the repeated application of moxa, and "*toutes sortes de mauvais traitemens**." Some simulators sustain their assumed disability with so much constancy and presence of mind, and seem to endure pain with so much patience, and evince so much anxiety to be cured, that one feels almost ashamed to discredit their testimony. Dr. Beck's opinion on this subject is by far too strongly stated. He says, "nothing can be more disgraceful than that a surgeon, one who is supposed to know the nature and symptoms of disease, should be deceived by an individual who feigns his *maladies*†." I never knew a medical officer, who had any considerable experience in the wiles of old soldiers, who would not readily admit that he had, at one time or other, been outwitted by their fallacious assumptions, and might be again deceived.

Malingers, even the most artful, are apt to overact their part, to assert that they suffer under an inconsistent

* Vide Dictionnaire des Sciences Medicales, article, "Contracture."

† Elements of Medical Jurisprudence, by Dr. Beck, page 28, English edition.

degree of uneasiness, and to enumerate incompatible symptoms. To encourage this disposition, and thereby to promote the detection of fraud, a medical officer should, as Dr. Cheyne recommends in his excellent letter to Dr. Renny, on the feigned diseases of soldiers, "not allow even flagrant imposition to deprive him of the command of his temper; he must listen to the most contradictory statement, not merely with patience, but without evincing the slightest distrust; in short, his manner must be the same to a soldier, labouring under strong suspicion of fraud, as it would be to the best man in the regiment*." Should he not trip spontaneously, he may be made to do so by asking him a few indirect questions. Unless he be remarkably well acquainted with the phenomena of disease, he can hardly avoid enumerating inconsistent symptoms: but it ought to be recollected, that many weak-minded people, suffering under real disease, are apt to fall into the same error.

There are various means that may be resorted to in doubtful cases; such as exhibiting some inert substance, to which great virtues may be attributed, and observing what report the person under trial makes of the effects in kind and degree. The influence of the imagination may, however, simulate the result of imposition. But, perhaps, there is no circumstance, which so commonly distinguishes truth from fraud, as the report a malingerer makes of his complaints. His pains and other symptoms of disease are rarely, if ever, alleviated; he almost invariably reports, that his complaints are either "worse," or "just the same." Now it is almost unnecessary to remark, that there is, perhaps, no chronic disease, which does not admit of well marked remissions.

Medical officers are occasionally induced to presume a

* Dublin Hospital Reports, vol. iv.

feigned disease is genuine when the general character of a man is good, and when they can discover no rational motive for imposition. Experience tells us, however, that these tests are by no means infallible, non-commissioned officers, and men of good character, sometimes feigning disabilities, as well-as young soldiers and incorrigible offenders. Many well conducted sergeants are extremely anxious to procure their discharge; more especially men who have some prospect of desirable employments in civil life. And with respect to our estimate of the motives of actions in others, we are constantly liable to error. The simulation of disease in some instances seems rather to be a consequence of insanity, than a rational attempt in a man to improve his future prospects. I recollect a private, belonging to the same regiment with myself, who for reasons known only to himself, divided the tendo-achillis of the right leg with a razor, and did every thing in his power to prevent its reunion. This man bore an excellent character, had served twenty-six years in the regular army, and been much on active service, so that he might have entertained a hope of obtaining his discharge with a good pension almost when he pleased.

In regimental hospitals a medical officer can very frequently procure much useful information from the hospital servants, and patients of good character, respecting cases where doubts are entertained of the genuineness of a disease. This is not however usually the case in general hospitals, and for causes which may be readily conjectured. I have been frankly told by orderlies in one of these establishments, that their life would be miserable if it were but suspected that they communicated privately with medical officers respecting the conduct of patients, and on that account they civilly declined promising to afford me their aid. It would be a great improvement to have a ward or two in all general hospitals, on the plan of a *panopticon*,

by which means a confidential person might occasionally observe what was going on, unseen by the patients. In some pretended cases of disease, as insanity, lameness, contractions, &c., impostors might frequently be much sooner detected by such a measure than in any other way.

Unless in cases of the greatest necessity, no suspected person ought to be transferred from a regimental to a general hospital. The reasons for this opinion are so evident, as not to require any illustration—malingerers are more frequently taught, than discovered and corrected in these establishments; consequently, every new comer, if his natural disposition harmonizes with that kind of instruction, is corrupted by the information he receives of the various modes of imposition.

But when a medical officer, after a due period of probation and close attention, presumes that an alleged disease or disability is feigned, it may be asked how is he to act? The man is not to be stigmatized in severe terms with the character of being an impostor, for, as Dr. Cheyne observes, such a method “although it may sometimes intimidate a raw soldier, will only afford a stronger motive to the hardened knave for perseverance; and if the opinion thus rashly pronounced should prove erroneous, the consequences may be very unhappy, the confidence of the soldier in his surgeon will be destroyed, and the latter will be subjected to the just displeasure of his military superior.” Even when a case is demonstrated to be feigned, harshness of manner is not commendable and ought to be avoided. Besides, a medical officer in a general hospital may give offence should it be inferred from his remarks, that feigned diseases are unusually frequent in a regiment. About five years ago a medical officer on the staff was arraigned before a court martial upon five charges, the substance of which is contained in the second, namely, “for having, in a most improper manner,

unbecoming his station in the army as ———, used opprobrious and disgraceful words, reflecting on the character of the ——— regiment, to the following effect, “that he had formed his opinion of ——— regiment; they were all schemers and malingerers.” He was very properly acquitted of all the charges, but the circumstance gave him much unmerited trouble and annoyance. The fact may however be useful as a warning to young medical officers, and it is with that view I have adverted to it.

If severe verbal remarks be either of no use, or sometimes followed by pernicious consequences, any more violent means of conviction would be still less advisable. The natural abhorrence of fraud, and the eclat which is supposed to attend the conviction of an impostor, may induce very well meaning officers to avowedly employ severe measures; however, it is a plan that never ought to be adopted. If a suspected patient possesses sufficient fortitude to support a rigorous trial without giving in, the medical officer who superintended it will be regarded with indignation, while the simulator is considered a martyr by his comrades. Every unsuccessful attempt makes a malingerer more determined to persist in his plan of impositions; and it is an undoubted fact, that many a simulator will not yield his point on account of any degree of physical pain, that can with propriety be inflicted. Dr. Cheyne relates the case of a man, “who pretended that he laboured under rheumatism; after persevering for four months bent nearly double, was at last tried by a court martial, convicted of malingering, and sentenced to receive three hundred lashes; one hundred and fifty were inflicted without effect, he obstinately declaring his utter inability to stand erect.” He gave in, however, on being ordered out to receive the remainder of his punishment, and became a good soldier.

That severe pain of the body will not influence some simulators to return to their duty, may be still farther evi-

denced by the circumstance, that the sufferings imposed by malingerers upon themselves are infinitely greater than any punishment a commanding officer would dare to inflict. A man named Fitzgerald, who belonged to the second battalion of the royals, while it was serving in India, asserted, that in consequence of an injury he received on his loins, he was unable to stand upright. For a period of eighteen months he kept his body bent forward, so that his hands, when the arms were allowed to hang downwards, reached to within about two inches of the ground. Every advisable measure was adopted for the purpose of inducing him to give in, and return to his duty, but all to no purpose. He held out until a communication from the Horse Guards was received, authorizing commanding officers to reinlist men, whose first period of service had expired, and to whom a bounty of sixteen guineas was to be given. This was the case with Fitzgerald; he recovered in the course of two days after the arrival of the communication had been announced, and presented himself for inspection, before the same medical officer under whose care he had all along been. Moral turpitude, not physical disability, prevented his being readmitted into the royals, but he eventually enlisted in the 25th dragoons, a corps which was then in India. Numerous other examples might be quoted, where men have voluntarily endured pain with all the fortitude of a martyr and the devotion of a Hindoo, for the purpose of obtaining their discharge. “For weeks or months many men have with surprising resolution sat and walked with their body bent double; some have continued to irritate sores in the leg, until the case became so bad as to require amputation of the limb; and many instances have occurred in military and naval hospitals of factitious complaints ending fatally*.”

I believe it is admitted, even by the most experienced military medical officers, that notwithstanding every

* Dublin Hospital Reports, vol. iv.

care to draw a just induction from symptoms, we may in some cases form wrong conclusions. In no instance therefore should means be employed, for the purpose of exciting an assumed simulator to return to his duty, which we would regret adopting if the disease were to prove genuine. Restraint, and any measure that bears the character of punishment, is not only illegal, but generally inexpedient. But although physical pain, beyond that which may be occasioned by the remedies suitable for the alleged disease, if real, should not be inflicted, a medical officer may in many cases be warranted in endeavouring to produce some mental uneasiness — by abscinding hope, exciting shame, and awakening a sentiment of fear. These means may be employed in a variety of ways; and he who can best apply them, either singly or combined, according to the situation in which he is placed, and the tempers and dispositions of individuals, will be most successful. The hopes of a simulator are commonly much chilled, when he learns, that the medical officer in whose charge he is to be placed is a man of ability, and particularly if report states that he has been fortunate in detecting schemers. A friend of mine has been very successful in extinguishing hope, and thereby inducing malingerers to return to their duty, by addressing them to the following effect, he having previously had them some time under his care. “I have carefully investigated every thing relating to the pains you complain of. You do not suffer so much uneasiness as you state. I perfectly comprehend your drift; you wish to be discharged from the service. The plan will not succeed. Take my advice, and get as fast well as you can. While you continue to complain of uneasiness and disability, it will be necessary to keep you on low diet: but as soon as I am informed that your health is improving, you shall have full diet, and it will be continued for a week or ten days, when you will be able to do your duty. I do not think your case requires the fur-

ther use of medicine." Some individuals affect to be highly indignant at an insinuation of this kind: however, as no further notice is apparently taken of them, a great proportion accept the full diet, under an implied agreement that they are to return to their duty, and having no prospect of success in their scheme, they virtually give in. It is generally good policy to afford a malingerer an opportunity of retreating, or, to use the language of the military hospital, to *let him down softly*. In a number of instances it will be found prudent to appear to believe every word a patient says, and to tire him by hospital discipline, in fact, to obviate fraud by fraud. But the same measures which are beneficial in one case may not succeed in another, and therefore the means should be varied.

The sense of shame is sometimes excited by the seeming neglect of a medical officer, as also by the scorn and jests of the other patients, and when a surgeon has it in his power to avail himself of this aid he should not neglect it, provided he can regulate its agency.

The sentiment of fear is sometimes usefully excited by hinting the propriety of adopting some powerful or disagreeable means of recovery at a fixed period, should an abatement of the causes of disability not occur before that time. When the actual cautery has been talked of, all the symptoms of disease have disappeared before the period it was to be applied. With a similar view it may be useful to recommend a change to a hot climate, such as the coast of Africa. That this measure may have the best chance of success, the suggestion ought to be very formally pronounced; and perhaps it would be more effectual if it were made by a medical staff officer, rather than by the ordinary medical attendant.

Comparatively moderate uneasiness, when unexpectedly excited, has often led to the detection and consequent conviction of an impostor, where the infliction of very severe pain, avowedly imposed, would have been borne without

his seeming to feel it. A deserter from the 60th regiment was tried by a court martial, and sentenced to be transferred to the African corps. While in the provost prison, Dublin, he asserted that he had lost the power of using his inferior extremities. Both medical and moral means were tried in his case, but all in vain. He was sometimes suspended by the arms, in the hope of inducing him to support himself on his feet, without avail. After about fifteen months had elapsed he was transferred to the general hospital, where he eventually exhausted the endurance of the medical officer, and at last was confined in a solitary prison ward. One evening, a pupil attached to the hospital, who slept in a room immediately over the ward in which he was confined, thought he heard the sound of his feet in the act of walking. This sound was afterwards frequently heard; but although the pupil repeatedly endeavoured to discover him on foot he never succeeded. At last he thought of a plan for detecting the impostor, which he put in practice, after obtaining the sanction of the medical officers of the establishment. The plan consisted in rubbing the soles of the feet well over with *cowhage*, which was effected with impunity to the pupil, by means of the intervention of a doe-skin glove; the impostor of course not being informed of the nature of the substance applied to his feet. When the spiculæ of the cowhage began to irritate the skin, he was heard to get out of bed, and during great part of the night he was walking and groaning, on account of the teasing sensation occasioned by the application; he even attempted to make his escape by climbing up the chimney, but in this measure failed. Next morning he gave in, and said he was now able and willing to go wherever he might be ordered, and in a few days embarked for England on his way to Africa.

In some cases, the final part of the management of a malingerer becomes a trial of patience between him and his medical attendant. A medical officer should however

never if possible yield, nor allow his patience to be exhausted, for as Dr. Cheyne very properly observes, "every instance in which fictitious or fabricated disease escapes detection and punishment, becomes not merely a reward granted to fraud, but a premium held out to future imposition."

The following instance is a case in point, and it affords an example of the difficulty which sometimes occurs of convicting an impostor, even when the strongest presumption exists that his disabilities are feigned. Pat. Maguire, a native of Portumna, county Galway, enlisted into the Hon. East India Company's service early in the year 1824. After being a few months at the depôt, Chatham, he became suddenly affected with loss of power of the right leg and thigh. When standing he merely touched the ground with the toes, and upon attempting to walk the limb bent under him. He attributed this feebleness of the leg to a fall he received when descending the barrack stairs; but there was no moral evidence in support of his assertion regarding the fall, and the limb evinced no trace of disease or disability; so that from the first he was suspected of scheming. After being a few months under the care of Dr. Davies, he was transferred to Fort Pitt general hospital, where he continued for nearly a year, and underwent a great variety of treatment. Maguire's case must be in the recollection of many of the medical officers who were on duty in Chatham during the years 1824 and 1825. Although still presumed to be an impostor, he was, on the 13th August, 1825, brought before a medical board, who came to the following conclusion: "the board have carefully examined Pat. Maguire, and think that he simulates disease to a greater or less degree, but do not consider he is likely to be benefited by further treatment, and therefore recommend him to be discharged from the service."

The finding of this board not having been considered

satisfactory at the Horse Guards, he was examined by another medical board on the 28th September, who reported, that they “were of opinion that he (Pat. Maguire) laboured under chronic rheumatism of the right hip; and although they deemed the disease in a great degree simulated, were yet of opinion that he was unfit for the Company’s service, and unlikely to be passed into the service again if discharged.”

He was discharged on the 9th October, and in January 1827 he addressed a letter to Colonel Hay, commanding the Company’s depôt, Chatham, stating that his health was in “a most deplorable situation,” and applying for a pension in consequence of having been disabled in the service. In a few days after the date of this letter, he enlisted at Birr, in the 87th regiment, and was brought along with the other recruits from that part of the country to Dublin, where he was at first considered ineligible for the service, on account of the cicatrices of issues which had been established on his loins; but being a country recruit, he was referred to the final decision of a medical board, who approved him. He deserted from the depôt of the district on the 17th March. When Maguire was examined at Dublin, it was not known that he had been in the Company’s service. On the 15th July of the same year, he, with the view of obtaining a pension, got himself examined at Nenagh by Dr. — assistant surgeon to the — regiment, who certified, that he was “disabled in consequence of an injury in the loins and right thigh, and that he was incapable of earning a livelihood from the above causes.” It is hardly necessary to observe, that this case will afford a useful warning to young medical officers, with regard to the granting of certificates of disability. This document was transmitted to me by a friend of Maguire’s, in the hope that I would promote his views, a circumstance which enabled me to ascertain the identity of the *invalid* from the Com-

pany's service and the deserter from the 87th regiment. A cue was also obtained as to where he resided, and measures were promptly taken by the recruiting parties, to seize him as a deserter, but without success. It may be observed, that Maguire was employed by a gentleman in the neighbourhood of Portumna, the same person who transmitted the certificate to Dublin, accompanied with a statement asserting, that, "from his own personal knowledge, he (Maguire) had not been able to do any thing for himself since he had been discharged." I think it is highly probable that the certificate granted in July was given at the request of Maguire's employer. It is supposed he has again enlisted, as he has not, since he first absconded, been seen by any of the recruiting parties on duty in the part of the country where he used to reside.

Should a malingerer persevere in the execution of his plan after the resources of a medical officer are exhausted, it may, in some cases, be advisable to threaten to report his conduct to the commanding officer, to be dealt with by him as may seem necessary; but this measure need not be carried into effect for a short period, or until he has had time to consider the subject. But if he still hold out, and the medical officer feels confident that the disability is purely feigned, he should be discharged from the hospital. It is not the surgeon's province to punish a man on account of fraud or neglect of duty, and he ought to be extremely scrupulous not to assume the function of the commanding officer in these respects.

The utility of attending to the subject of feigned diseases is, perhaps, not in general sufficiently appreciated. In civil life the simulation of infirmities is not unfrequent, and commonly with a fraudulent intention. To medical officers of the army and navy, more especially those who are employed in recruiting depôts and general hospitals, the study of feigned disease is indispensable. In proof of

this proposition one example may be particularly adduced, but many will appear in the subsequent remarks. During the year 1803, the medical charge of a regiment of militia in Ireland devolved upon a person unacquainted with the diseases of soldiers, and much less so with their malpractices. Several of the men, who discovered that they could easily impose upon him, reported themselves affected with incontinence of urine, and consequently incapable of performing their duty. This imposition extended to such a degree among the men, that numbers of them had their white breeches completely destroyed by urine, and the colonel declared to Deputy Inspector Comyne, who had gone to inspect the regiment, that he was thoroughly ashamed of the appearance of the corps on parade. The fraud was instantly detected by Dr. Comyne, and the progress of the epidemic arrested by ordering all those men, who had spoiled their clothes, to be marched to a lake morning and evening for the purpose of cold bathing.

The late Mr. John Bell did not consider the art of producing diseases unworthy the attention of medical men. He says, "A surgeon, though well skilled in his profession, would need to study how to swell the joints, waste the bones, blow up the parts, as the scrotum, or knee, or head, with wind; how to produce perpetual ulcers of all horrible forms; how to destroy the limbs by compression; how to produce sore eyes, perpetual vomiting of blood, passing of stones from the urethra, enormous flatulent swellings of the stomach, &c.*"

The chief purport of these remarks is to inculcate an attentive study of the peculiar symptoms and indications of individual cases. No man should be presumed an impostor until after careful examination and observation,

* Principles of Surgery, vol. i.

which in many cases will require a considerable period of time. The mistakes into which medical officers have fallen in this respect afford useful warnings, that ought to make a much stronger impression on the mind than the conviction of malingerers. In the following case incredulity was pushed much too far, and perhaps due care was not taken to investigate the symptoms. "A man complained of inability to move the shoulder joint without much pain, and yet nothing could be seen externally for a month or six weeks, during which period he was excused from duty. At length the surgeon got tired, and suspected that the man was *skulking*. He was ordered to duty, but came back, declaring he could not move his arm. He was reported to the commanding officer for counterfeiting inability, and was actually flogged, though very moderately. It turned out, however, that a deep-seated abscess had been forming in the shoulder joint, which ultimately terminated in complete ankylosis."—*Medico-Chirurgical Review* for December 1823, page 596. In doubtful cases a medical officer ought invariably to lean to the side of the patient. When a decision is likely to lead to corporal punishment, extreme care should be exercised.

The following catalogue of feigned infirmities will serve to illustrate the above remarks, and as these hints are chiefly intended for the perusal of gentlemen, who have just entered the medical department of the army, I have inserted disabilities, which persons of more experience of the diseases and habits of soldiers may consider unimportant. Young medical officers cannot be too careful to guard against being implicitly influenced by testimony, instead of scrupulously and patiently examining less doubtful evidence—the regularity or irregularity of the various functions of the body.

Intermittent Fever.—To evade duty, or to obtain a removal to a more desirable station, this disease is occa-

sionally pretended in countries where endemic fever prevails. The impostors commonly state, that the paroxysm supervenes during night, and the symptoms intermit as the morning advances. This variety of fever rarely comes on after 8 o'clock, P. M.; consequently an easy method is afforded of detecting suspicious cases by simply desiring a patient to send for his medical attendant on the access of a paroxysm, at whatever hour of the night that circumstance may occur. This plan has I know been very successful. A paroxysm of intermittent fever is sometimes simulated. Dr. Cheyne relates a case where he was called to see a patient in the General Hospital, who was stated to be in the cold stage of this fever. He found him, however, not in the *cold* but in a *sweating* stage, produced by his exertions. This man returned to his duty without making the slightest objection.

Continued Fever.—A condition of the system simulating fever is sometimes artificially produced, and the means employed are various. Swallowing a small quantity of tobacco quickens the pulse, and produces an appearance of general indisposition: a similar effect is produced by introducing it into the anus. Flour or chalk is employed to whiten the tongue. I saw a case at Fort Pitt, where the tongue was brown and dry; however, the line of demarcation between the exsiccated part and the clean healthy margin of the tongue was too well marked to escape observation. The means employed to brown the tongue I did not discover. The simulation of fever in this instance was practised apparently with the view of evading embarkation for India, but the scheme did not succeed.

Mr. Hutchison met with a case of feigned disease, where the tongue was covered with a coating of common brown soap*. The apparent bilious tinge of a coated tongue may be caused by chewing a little gingerbread.

* Practical Observations on Surgery, by A. C. Hutchison, Esq.

Swelled Legs, simulating phlegmonous inflammation, œdema, &c.—Mr. Jones, surgeon to the 58th regiment, gave me the following account of a case of excited swelled leg, that he had under his care. The man was a sergeant in the 10th foot, and on detachment at Waterford. Mr. Jones admitted him into hospital on account of seeming inflammation, and real swelling of his right leg, and the ordinary means were employed without success. At one time it was thought an abscess had formed in the leg, and Mr. Jones actually took the abscess lancet in his hand, with the view of making an opening into the cavity. Thinking, however, that the sense of fluctuation was not sufficiently well marked, he desisted. From the anomalous character of the affection, Mr. Jones began to suspect that it might be excited; and for the purpose of discovering the imposition, if it existed, he visited the hospital one evening, near midnight; he proceeded promptly to the sergeant's bed, turned off the bedclothes, and discovered the trace of a ligature round the thigh; for, notwithstanding Mr. Jones's expedition, the cord had been removed. By the succeeding morning the swelling had nearly disappeared. It may be observed, that the sergeant did not evince the slightest reluctance to the insertion of the abscess lancet, when Mr. Jones had it in his hand.

I have reason to think that a ligature round the thigh is sometimes employed to aggravate, if not to excite, varicose veins of the legs.

Inflammation of the Eyes.—This affection is very frequently excited by soldiers, and many of the methods employed are still undiscovered. The more common irritants used are muriate of mercury, muriate of soda, nitrate of silver, sulphate of copper, the gonorrheal discharge, cantharides ointment, tobacco, a piece of woollen cloth, and quicklime. Where an acrid powder, as lime, is employed, it

commonly occasions a sloughy ulcer on the conjunctiva which lines the lower eyelid, and sometimes particles of the substance are found on this membrane. I once detected a patient in hospital for ophthalmia with a small portion of black muslin spread over the cornea of the right eye. This man had recently lost the power of vision in the left eye, probably the result of artificially excited inflammation. For a similar purpose nitric acid has been employed. A strong acid directly applied to the cornea suddenly occasions a slough, and sometimes vision is destroyed. Not long ago a case happened in the general military hospital of this city, where a sloughing ulcer on the cornea supervened in the course of a few hours, which was supposed to have been excited by means of an acid.

To excite disease of the palpebræ, the hairs of the ciliæ are extracted, and caustic applied to the place whence they have been withdrawn.

Amaurosis.—Blindness, without an apparent cause, is not an unfrequent disease in military hospitals; and there is sometimes reason to infer, that the loss of vision is only pretended. A dilated pupil and inactive iris (symptoms that commonly characterise this affection) are simulated by the application of the extract of belladonna, or hyosciamus, to the skin round the eye, and above two hundred conscripts in France succeeded by this means in being declared amaurotic. I have known dilated pupils and blindness temporarily produced by a small portion of the leaf of the *datura metel*, which was mixed with a man's food. In the instance to which I allude, the drug was nefariously exhibited for the purpose of depriving the man of his property; a design which unfortunately succeeded.

District surgeons are frequently much employed in examining the cases of individuals, who are or have been in the army or navy, and who claim pecuniary remuneration

on account of injuries received on service. This is commonly an important, sometimes a difficult duty; and in no specific defect is the difficulty greater, than when loss of vision is averred, without any material objective symptoms to corroborate the testimony of a claimant. Fraud we know is frequently attempted, and consequently we should be very guarded in our decisions; but while due care is taken to prevent imposition, the rights of individuals ought to be rigorously respected, to neglect which would be both inhuman and unjust.

There can be no doubt that vision is sometimes completely gone, in cases where mobility of the iris remains. When it is wished to ascertain whether the iris be sensible to light or not, a lighted candle may be brought from behind the head and held before the eyes. In complete and confirmed amaurosis of one eye, there is in general a want of consent in the expression of the countenance, and frequently a projection of the centre of the lucid cornea.

Since the 26th December, 1825, when the commissioners of Chelsea hospital ordered an addition to be made to the rates of pensions of such men as can produce certificates testifying that they labour under "total blindness, the effect of disability contracted on service," there has been a number of invalids at this depôt pretending total blindness, with the view of benefiting by the above regulation. Individuals who have totally lost the sight of one eye will sometimes appear for examination just after some irritating substance, as snuff, has been introduced into the other, evidently with the hope of thereby procuring the requisite certificate.

Short Sight.—This defect used to be frequently simulated in France, during the rigorous execution of the conscript laws. The fraud may in general be detected, or the real existence of the disease ascertained, by presenting a person with an open book, and placing the leaves close to the nose. But

the power of vision may be greatly impaired by wearing convex glasses, and with this view they were much employed. The number of conscripts that excited myopia in France during the late war became so great, that persons thus situated did not receive a total exemption from military service, they were employed as pioneers or hospital servants.

Strabismus.—Squinting is sometimes simulated, and from the custom of practising it often a habit is produced, and the defect becomes permanent. This affection should rarely cause a recruit to be considered unfit for service; it does not incapacitate for the practice of trades, in which the faculty of vision is particularly required, as watch-making, &c.

Chronic disease of the Liver.—This affection is frequently pretended; and as the real disease is often not characterized by definite symptoms, the fraud is difficult of detection. Men who have been long in the East or West Indies, can commonly enumerate the symptoms of hepatitis with great accuracy, some on account of having themselves suffered from the disease, and others from having heard their comrades describe it. In cases of this kind, where testimony is doubtful and physical evidence not satisfactory, a medical officer cannot use too much care to ascertain the real state of his patient, and until he has completely made up his mind on the case, very simple remedies should be employed. A recruit, having become tired of a military life, wished to obtain his discharge, and in furtherance of that end pretended he had a severe pain in his *left* side, at the same time stating that he had “liver.” Seeming to believe that this disease was of a grave nature, the recruit was confined to bed, and accommodated in a ward by himself, lest his sleep might be disturbed by the conversation of his comrades. He was kept on very reduced diet, and a solution of *antim. tart.* alternately with the

*mistura diabolica**, regularly exhibited. Under this discipline he held out for a month, and then recovered rapidly. Some time after he confessed the fraud, and swore if it had not been for his stupidity in locating the pain in his left side, the imposition would never have been discovered. He was mistaken, the imposition was evident from the first; but I am not aware that any other means would have made him sooner return to his duty. Every experienced medical officer will concur with Dr. Cheyne in his remarks regarding chronic hepatitis, where he says, "we ought never to put a malingerer under a course of mercury, as by the requisite stay in the hospital he will not only be enabled to mature his plans of villany, but his constitution will be thereby injured, if forced to return to his duty; after being salivated he will soon be again in hospital, asserting that the pain in his side returned as soon as his mouth got well; a new course of mercury will then be instituted, which is precisely what he wishes for."

Pain simulating rheumatism, lumbago, sciatica, &c.—The simulation of this class of infirmities is frequent, and detection of the imposition often difficult. The non-existence of uneasiness cannot be proved, and all must admit that a considerable degree of pain may be present, without a well-marked change in the external appearance. The imposition is perhaps more frequently discovered by the inconsistencies and contradictions a patient makes in the history of his complaint, than by diagnostic symptoms. Pain, whether it be in the external or internal parts, is commonly periodical, and it is generally aggravated towards evening. If a patient evinces great aversion to active means of cure, such as the actual cautery, or if

* This mixture consists of salts, infusion of tobacco, assafoetida, &c. &c.: it is commonly given in very small quantities at a time, but so frequently repeated as to keep the taste constantly in the mouth.

the remedies exhibited are reported not to have had the usual effects, there is some room for suspicion. In real rheumatism, there is commonly some puffiness of the affected part, and a certain degree of fever, and disorder of the digestive organs, with considerable alleviations of pain. Sometimes the remission of uneasiness seems to depend on the medicines employed, at other times on the condition of the weather. If the disease be of long standing, the limb becomes reduced, and the countenance expressive of debility, and general indisposition: the patient is generally found in bed, or moving about very leisurely. On the contrary in simulated rheumatism, there is no puffiness of the part, no fever, the appetite is good, the pain is never alleviated, let the weather be what it may, or let whatever medicines be employed; and if we surprise cases of this kind in hospital, they will frequently be found apparently at their ease and enjoying the amusements of their comrades. The simulator of rheumatism also generally complains much more than a person really suffering under the disease. But notwithstanding these apparently distinguishing marks between real and simulated rheumatism, the most eminent and attentive medical officers have been deceived in their diagnosis. Dr. Peile, deputy inspector of hospitals, had some time ago a negro soldier under his care, on account of chronic rheumatism, with contracted joints, who excited the greatest compassion and pity. He never moved without uttering violent expressions of excruciating suffering. Every remedial means which promised either to relieve or cure him were employed without success. At last he was discharged as incurable; and four days after this event took place, Dr. Peile saw him actively pursuing the avocation of a lamp-lighter. This man performed his part so dexterously, that the veracity of his testimony was never doubted.

This is perhaps the most frequent class of ailments as-

sumed by recruits to accomplish their rejection, and by old soldiers to obtain their discharge. They commonly think nothing more is required to render their defect plausible, than to affirm that they have pain in some part of the body, assume the aspect of suffering, and affect decrepitude or loss of power in the limbs or joints. The back, loins, and hips are the parts usually selected, the knee, ankle, and superior extremity less frequently. Soldiers are well aware, that to simulate such internal diseases as fits, spitting of blood, incontinence of urine, &c., with a reasonable chance of success, requires a knowledge of symptoms and sensations with which they are generally unacquainted; hence they are afraid of betraying themselves, and less frequently simulate this class of ailments. They seem to consider the constant use of a crutch or stick, and a ready submission to such remedies as blisters, issues, &c., as irresistible proof of the reality of their disease. Recruiting depôts and general hospitals furnish numerous examples of imposition of this kind, and the best directed management frequently fails in making them return to their duty as good soldiers. When the health is good, and the seat of the alleged pain unaffected by swelling or increased temperature, a medical officer will probably in nineteen of twenty cases be safe in concluding that no material disease exists.

In cases of simulated lumbago, where persons remained bent nearly double, Baron Percy was remarkably successful in his attempts to produce conviction by engaging them in an interesting conversation, while an assistant approached insidiously, and pricked them on the posteriors with a long needle. Mr. Bouchier, 36th regiment, had a suspected case of lumbago lately under his care, which had for a long time resisted all his remedial measures. He at last introduced a little tartar emetic into the man's food, which producing sickness and nausea, he began to think that he

had become really ill: he sent for a priest, and virtually gave in by promptly returning to his duty.

A malingerer, when he pretends that he suffers under internal pain, is not always easily and immediately detected. Pain in any of the different cavities of the body, as the head, thorax, and abdomen, is commonly accompanied with peculiar symptoms. But although much care be taken, an impostor will sometimes succeed in evading a temporary duty, by feigning internal uneasiness, such for instance as the following. A soldier was brought to his regimental hospital during the afternoon, complaining of severe pain of the abdomen; he screamed when the slightest pressure was applied to that part of the body. He was freely bled, and shortly after an anodyne draft was exhibited. There being some suspicion of the truth of this man's assertions, he was visited about midnight by the medical officer under whose care he was, who found him sound asleep. Pressure was applied to the abdomen, and after considerable kneading he awoke, still however he persisted in pretending that he could not bear the application of the hand to the lower belly. Tricks of this kind are sometimes attempted to elude an inspection of necessities, or the performance of some particular duty, which a soldier happens to dislike. In a tropical climate, where the above case occurred, disease sometimes runs so rapid a course, that medical officers often deem it prudent to resort to curative means with more promptitude than in high latitudes, and consequently, when a man reports himself sick, time is not always afforded to examine moral evidence in doubtful affections.

Accident has in this as in many other feigned affections, frequently led to the detection of an impostor, long after every deliberate attempt for that purpose had been abandoned. A recruit of the 7th dragoon guards insisted that he was unable for drill, in consequence of pain in his right

side, which was so severe as to prevent him from moving without greatly aggravating the uneasiness. He had exhausted all the resources of medicine, without admitting that he received any benefit. While the other recruits were practising the sword exercise, and indeed at all drills on foot, he was obliged to appear properly dressed in the rear of the squad. One day after drill, the men were directed to practise leaping over a rope. While they were thus employed, the adjutant said to the recruit in question, Now, Crump, if you will jump over that line I will give you a shilling. Crump forgot his assumed defect, cleared the rope, and stood convicted. He became a very good dragoon.

Spitting of Blood is an indication of disease not unfrequently simulated. The means employed for this purpose are various; some covertly provide themselves with bullock's blood for the purpose of colouring the saliva; others make small incisions on the inside of the mouth; armenian bole and paint composed of vermilion have also been used. Pricking the arm and sucking the blood is another means to which simulators of this affection resort. To detect an impostor who feigns hæmoptysis, all that is commonly required is to examine the contents of the spitting pot. Blood from the lungs is florid, and coagulated in smaller or larger portions; but when the appearance of disease is feigned, the red-coloured substance is intimately mixed with saliva.

Vomiting of Blood.—This affection is simulated by first swallowing blood, and subsequently ejecting it. A case of this kind happened not long since in the 46th regiment, and the man thereby effected his discharge from the service. He found means to get blood conveyed to him in the regimental hospital at intervals suiting his purpose. The blood, which was swallowed a little before the morning visit, excited nausea, generally accompanied with vomiting. After having procured his discharge, he in-

formed his comrades by what means he had simulated the hemorrhagic affection.

Pectoral Complaints.—Consumption is not unfrequently feigned by men, desirous of procuring their discharge, and I believe sometimes with complete success. Dr. Cheyne very graphically describes some of the tricks of a simulator of phthisis. “He expresses a wish to be let blood, or blistered, for a pain in his chest, begs for some medicine to relieve his cough, applies for a furlough; in short, so well does he act his part, that unless the surgeon is very circumspect, he will discover when too late that he has been made a dupe of.” But impostors are not always content with merely pretending disease, a more complicated system of fraud is sometimes attempted. Emaciation is excited by abstinence and drinking vinegar, cough and hoarseness are affected, debility pretended, and a puriform expectoration is easily obtained from the spitting pot of a patient, really labouring under consumption. Many impostors are sufficient adepts in the art of deranging the functions of the body, to be able to simulate hectic fever by artificially quickening the pulse, so that all the leading symptoms of phthisis are more or less completely feigned. Chronic catarrh is often the groundwork upon which a case of fictitious consumption is founded. When the patient is in hospital, the expectoration is regularly shown to the medical attendant; and to increase the quantity it is mixed with saliva and mucus from the nose; sometimes by borrowing from another individual. It is often tinged with blood, which is commonly produced by pricking the gums. In cases of this kind the breathing is generally quick, and there are always complaints of pain in the chest and disturbed rest from cough.

There can be little doubt that individuals occasionally qualify themselves to carry on a scheme of imposition by the perusal of medical books. Patients in general hospitals commonly evince an excessive anxiety to study case books,

and avail themselves of every opportunity that offers to acquire information by that means. The rapid recoveries which take place in some men shortly after they are discharged on account of pectoral complaints, is often surprising, and tend to raise doubts respecting the real existence of disease.

Among the numerous instances of old soldiers, who re-enlist at this depôt, I have examined some that had been discharged at Chelsea only a few weeks or months previously on account of consumption, as stated in their "discharge," or "instructions," and who certainly had when I saw them no external character of this or any other disease. When discharged men wish to re-enlist, they commonly conceal and frequently deny that they had been formerly in the service. Sometimes they are detected by the remains of a part of the uniform; at other times by their gait or manner; but I have no doubt that a number of such cases are approved without being discovered.

Diarrhœa. Dysentery.—Bowel complaints are occasionally pretended by recruits, when they wish to avoid leaving a district depôt to join their corps. The fraud is easily detected by inspecting their linen; if it be clean, we may infer that the bowels are not much out of order. In countries where dysentery is prevalent, as in India, bowel complaints are often pretended as a pretext for evading duty. To obviate this source of imposition, every suspected case should be furnished with a close-stool for his own use, and the evacuations inspected. Care must be taken, however, that a patient really suffering under this disease shall not lend his aid to promote the fraud. But we learn from Mr. Hutchison, that bowel complaints were excited in the naval hospitals for the purpose of invaliding. The means employed were a mixture of vinegar and burnt cork, by which some fine young men destroyed themselves. He likewise informs us, that a solution of the sulphate of iron is sometimes used for a similar purpose, by convicts who are employed as shoemakers; they swallow the fluid fur-

nished to blacken the leather*. For temporary purposes, slight dysenteric symptoms are sometimes excited by introducing irritating suppositories into the rectum. In civil life, I have known coagulated bullock's blood exhibited in a chamber utensil to the physician of a dispensary, for the purpose of obtaining a certificate of ill health, and consequently a ration of soup from a public soup kitchen.

Paralysis.—The loss of the power of the superior or inferior extremities is sometimes pretended, and the fraud is not always easily detected. Mr. Jones, surgeon of the 58th foot, but formerly of the 44th regiment, gave me an account of a case of feigned palsy, which happened in a private of the latter corps. The man in question stated that he had fallen asleep in the open air, and that when he awoke, he found he had lost all command over the right arm. Mr. Jones soon satisfied himself that the affection was feigned, and reported his opinion of the conduct of the impostor to the commanding officer of the regiment, who ordered him to be tried by a court martial. He was sentenced to receive three hundred lashes, which, owing to particular circumstances, were not inflicted. Shortly after the sitting of the court martial, he was transferred to the general hospital, Dublin, and placed under the care of Dr. Cheyne, from whose account of the case I will take the liberty of making the following extract. "After due consideration, I concurred in the opinion of the surgeon that this man was an impostor, and prevented him from being discharged. I tried various remedies, and among the rest sharp shocks of electricity, which he bore with great resolution. At last, finding that he made no impression upon me, and that my report would be an unfavourable one, he *gave in*. We came to this compromise, he agreed to return to his duty, and I undertook to use my influence in preserving him from punishment. Those

• Practical Observations on Surgery, by A. C. Hutchison, Esq.

who simulate palsy and rheumatism, more frequently yield to the electric shock than to any other remedy." This man rejoined the regiment, and made several other unsuccessful attempts to feign disabilities, probably with the view of avoiding embarkation for India. Determined, however, to effectually disqualify himself for the service, he placed his right hand before the wheel of a baggage wagon, while in motion on the public street of Chatham, by which means several of the bones of the hand were fractured. He was again foiled; he accompanied his regiment to India, and the functions of the hand became so far restored as to enable him to perform the usual duties of a soldier.

Very simple means have sometimes been influential in detecting an impostor, and fraud has been discovered where its existence was hardly suspected. During the late war, when troops were often suddenly moved, a number of the sick was sometimes transferred to the charge of the surgeon of the relieving corps. Under these circumstances, a few cases fell under the care of Dr. Barrie, surgeon to the Renfrew militia, while this regiment was quartered at Bristol. Among them was a private of a cavalry corps, who asserted that he had lost the power of both arms: he had been long in hospital, and treated successively by a number of medical officers, upon the presumption that the defect was genuine. He was fed, dressed, and undressed by an orderly, and each superior extremity hung like a pendulum by his side. Upon examining the arms, they were found to be extenuated, and considerably softer than natural. The doctor was however not quite satisfied with regard to the apparent loss of power of the arms, and consequently delayed to make up his mind on the case. While he was from time to time investigating the symptoms, it appears to have struck a half-witted fellow, who was in hospital more for the purpose of keeping him out of harm's way than on account of disease, that

doubts were entertained respecting the man's disability; for one morning the doctor was addressed by the ideot as follows: "Do you think —— has lost the power of his arms? I ask this question, because I saw him yesterday in the necessary, where he used them as well as I did mine!" The impostor denied the statement, and persisted in averring his complete loss of voluntary power of the arms. He was soon after brought to the notice of the staff surgeon of the district, who recognised him as an old offender, and one who had served in the same regiment with himself. Finding that no hope now existed of the success of his scheme, he gave in; and when Dr. Barrie next visited the hospital, he found his paralytic patient scrubbing the floor of one of the wards.

Perhaps few impostors have displayed more fortitude than a private belonging to the 10th regiment, while it was on duty in the Mediterranean. This man pretended that he had lost the power of his inferior extremities, and for a period of about two years endured all that medical skill and suspicion of his testimony could suggest, with the view of enabling or forcing him to return to his duty. Before recommending him to be invalided, his medical attendant submitted him to the following trial: he was confined in a small room, and a shelf well stored with provisions suspended over his head, which he could easily reach by merely standing upon his legs, but not otherwise. At the end of forty-eight hours the food remaining untouched, it was not considered advisable to prolong the experiment. He was then included in the list of invalids, and put on board a transport bound for England. While in the harbour, an alarm was given, about midnight, that the ship was on fire: every one hurried into a boat alongside: after reaching the quay, the passengers were mustered, and it was found that the paralytic invalid had not only succeeded in saving himself, but also his trunk and clothes. He was remanded to the ranks.

A similar case may be mentioned. Private Byrne, 27th regiment, was admitted into the general hospital, Dublin, in consequence of syphilis. The ulcers soon healed, but during recovery it was with difficulty that he could be prevailed upon to leave his bed, in consequence, as he stated, of having lost the use of his inferior extremities. He was requested to use crutches, and thereby to lend his aid to restore the power of his limbs, but all to no purpose. He moved from one part of the ward to another, by pushing himself forward on his breech, with his hands, and sometimes the other patients used to carry him on their backs, particularly when he wished to be brought to the open air. In this manner he went on for about a year. The surgeon of the hospital at last considered that Byrne was a schemer, and determined to send him to the dépôt of his regiment, which was at that time in England. He was discharged from the hospital, and carried on board ship. The staff sergeant, who conducted the party of which Byrne was one, conveyed a letter from the surgeon to the commanding officer of the dépôt, stating, that he believed Byrne possessed the full use of his limbs, and that the apparent disability was feigned. This letter was read to the party by the adjutant, who informed Byrne, that from what he knew of his former character and the surgeon's report, he was thoroughly convinced that he was an impostor; he concluded his address, by recommending him to do his duty; and gave orders that he should be next day employed to carry a load of potatoes of nearly a hundred weight from a distant garden to the barracks, for the men's mess. This task he performed, to the surprise of all his comrades. He soon after embarked for the Peninsula, where he deserted, and was never again heard of.

It is surprising how long a part of the body may be kept in a state of inactivity without much diminution of muscular power. Two cases happened some time ago in this city, strikingly illustrative of this circumstance. A soldier

asserted that he had nearly lost all power over the inferior extremities, in consequence, as he stated, of a hurt received on the loins. Active means were employed; and as he was from the commencement suspected of being an impostor, the measures were long continued. The patience of the medical officer who attended him became exhausted, and he was eventually recommended to be discharged. The day he was to receive his discharge, he crawled on crutches to the office where it was to be given him. Having obtained the document, he begged one of the officers of the establishment to read it to him, which he did twice. After satisfying himself that the discharge was properly made out, he first deliberately threw away one crutch, then another, and darted forward, overturning two men who happened to be before him, and finally disappeared, springing over a car with a water cask on it which stood in his way. During the late war, a man belonging to the Cavan militia, was, in consequence of assumed weakness of the inferior extremities, kept in his regimental and the general hospital of this city for two or three years, and almost the whole of this period he never moved without crutches. He was at last discharged. The day after he received his balance of pay, he had himself driven in a car to the Phoenix park, where the Cavan militia was at exercise. Upon approaching the corps, he laid aside his crutches and advanced in front of the line; he then bounded like a deer for some time before the regiment, and after slapping his breech, scampered off as fast as he could. The object of some impostors appears to be incomplete, until they make it known to all their comrades, that they have obtained their discharge entirely by a deliberate system of deception.

There are perhaps few diseases that exhibit in their causes and symptoms greater varieties than paralysis. In some instances, the sensibility of a limb is more affected than its mobility, and *vice versa*. Palsy is not always well

marked by external characters; hence a soldier, who feigns this disease, is perhaps more frequently detected by the inconsistent account he gives of the origin and symptoms of the assumed complaint than by other means. An incongruous relation of the cause of a disease is not however invariably a proof that the statement is false. Instances sometimes occur, where it must be very difficult to discover whether an allegation of the loss of the power of a limb be strictly true or not. The cause of real disease is sometimes apparently very improbable. Not long since a young lady, turning the corner of a street in this city, came suddenly in contact with a number of boys wearing hideous masks; she was excessively alarmed, and instantly sunk to the ground. Her inferior extremities remained so paralyzed, that she could not walk for a period of nine months. Adults are, I believe, sometimes, although but rarely, liable to palsy of some of the extremities, apparently from an inflammatory affection resembling rheumatism.

Palsy is occasionally pretended by invalids, who wish to procure an addition to their pension. While examining one lately, who stated that his right leg was paralytic, I desired him to stand upon his left foot, and push forward his right leg, this he asserted was beyond his power. I then desired him to stand upon the right, and push out the left, a motion which he performed instantly. He did not recollect, that the force exerted in this experiment was chiefly by the quiescent extremity.

When the limb is apparently sound, and neither unusually soft nor materially extenuated, Baron Percy recommends a trial to be made of the actual cautery; observing, that if the affection be real, this treatment may be advantageous; and although simulators often evince considerable fortitude, they have, for the most part, great reluctance to the application of caloric in this manner.

Paralysis of the Superior Palpebræ.—I never saw

this affection feigned but once, and the impostor was a sepoy belonging to the 2d Ceylon regiment. The muscular resistance which accompanied every attempt to raise the eyelids proved satisfactorily that the affection was simulated. He held out but a very short time.

Wry Neck.—Recruits under examination occasionally simulate a permanent contraction of the flexor muscles of the right or left side of the neck, although rarely with much art. An obliquity of this kind has been feigned by old soldiers, with the view of procuring their discharge. Daniel Kerr, a private in the 75th regiment, while stationed at Corfu, averred that he had wry neck; and as the head had remained in an oblique position for a long period, he was about to be discharged. Immediately before this was to take place he got drunk, and was confined in the guard room; he did not, however, on this account lose self-possession, until in consequence of a scuffle among the prisoners, he was struck by one of his companions, when in his eagerness to resent the affront he completely forgot his assumed defect. He continued in the regiment for a number of years, and was a tolerably good soldier.

Palpitation.—Both external and internal means have been employed to excite this affection. By means of tight ligatures round the neck and upper part of the arms, the circulation has been greatly disturbed, and the intention of simulators nearly effected.

Palpitation of the heart became epidemic among the men of the marine artillery in 1821 or 1822, and, if I am rightly informed, it was very prevalent in a regiment of the line about the same time, whereby a number of men were invalided. Dr. Quarrier, surgeon to the marine artillery, informed me, that when the affection appeared in this corps, it was for a considerable time attributed to hard drill at the great guns, and subsequent exposure to currents of cold air. In the course of time, however, the

epidemic extended to some of the seamen, who were accommodated in the same hospital (Haslar) with the marines. Suspicions were eventually entertained that the affection was artificially excited, but it was long before the medical officers were able to ascertain the nature of the means employed. The secret was at last discovered by the confession of a man who had himself excited disease, and consequent irregularity of the heart; the drug employed was found to be the powder of *veratrum album*. The ordinary dose was about ten or twelve grains, or as much as could be raised upon a sixpence, which was repeated so as to occasion general indisposition, and undue action of the heart. Large, or frequently repeated moderate doses occasioned distressing headach, nausea, vomiting, and sometimes violent purging. In some instances abdominal pulsation was the chief symptom of disease. The practice of thus exciting disease was introduced into the corps by a private that had formerly been servant to a veterinary surgeon, who employed him in compounding medicines. This man used to furnish his comrades with a dose of the powder for about three pence; but if he told them the name of the drug, so as to enable them to purchase it at a druggist's, he charged 3s. 6d. The epidemic ceased, both among the marines and seamen, soon after the exciting cause of the affection was discovered; but before that event some persons were discharged on account of disordered circulation, who were afterwards found efficient soldiers in other corps.

In November 1823 there were three suspicious cases of this affection in Fort Pitt hospital, belonging to the 12th regiment. They were stripped naked, and removed to a ward where they were carefully secluded from external communication. After the lapse of a period of about six or seven days, they applied to be permitted to return to

their duty, and, upon investigation, it was found that all undue action of the heart had ceased.

Impediment of Speech.—Simulators of this defect commonly state that it is congenital, but the more artful ascribe it to a fit of apoplexy, or a severe fever. Where the organs of speech were perfect, and the moral evidence of the previous existence of the infirmity not satisfactory, the French authorities used to confine alleged stammerers, and deprive them of food until they called for it without any hesitation of speech.

During the winter of 1826-7, a sentry, while on duty at a post in the garrison of Chatham, became affected with an impediment of speech, which was considered an involuntary defect by the medical officers of the general hospital, Fort Pitt, and the man was discharged from the service. Shortly after another sentry on the same post as the former became similarly affected; his impediment was presumed to be simulated. While under medical treatment he deserted, and after some time was taken and brought back to his corps. His utterance was still indistinct: electricity, shower baths, and various other medical means, were employed in vain. Some of the medical officers who carefully watched this case were of opinion, that although the defect might have been originally feigned, it had become by practice involuntary. The final result of the case I have not learned.

Hesitation, like other modes of speech, is said to be sometimes caught by insensible imitation, as in the case of children; it is also occasionally acquired by mimicry, although I should presume but rarely in persons of adult age.

Epilepsy.—This disease is not unfrequently pretended by recruits at secondary examinations. One mode of attempting to deceive is to appear at the inspection-room

with a *Gospel** suspended round the neck, which is alleged to be worn as a spell or charm for the purpose of preventing a paroxysm of the "blessed sickness" (epilepsy), a disease to which he has been long liable. Sometimes the relations of a recruit wait upon the district surgeon, and inform him that he is frequently subject to "falling sickness," or labours under some other incurable complaint. These statements pass of course unheeded, although they may be true, a liability to epilepsy not being characterized by any external marks, by which it can be recognized. Dumas, in a work on Chronic Diseases, states, that, in constitutional epileptics, the facial angle is always under 80, and recedes from that to 70. But the science of mathematics has hitherto done little in contributing to a correct diagnosis of disease, and perhaps as little in epilepsy as in any other. It may be observed, that real epileptics are unwilling to speak of their complaint; and, if the subject be forced upon them, they are apt to give the symptoms a different name, by which means they attempt to deceive others, and are perhaps deceived themselves. Both young and old soldiers sometimes simulate a paroxysm of this disease, with the view of obtaining their discharge; and it is of some importance to be able to distinguish a real from a feigned attack.

No dependence can in general be placed upon the testimony of a soldier in regard to the origin and duration of this disease, or the account he gives of the sensations which precede or follow a paroxysm. Our conclusions must therefore be chiefly drawn from external symptoms; in a great many instances the deception in a feigned paroxysm is easily discovered, but cases sometimes occur where the symptoms are simulated with so much art, and

* A Gospel consists of a verse of one of the books of the New Testament, enclosed in a piece of cloth.

the schemer endures irritating applications with so much fortitude, that it is difficult to detect the imposture. Some individuals have undergone extremely rigorous trials, even the application of the actual cautery, without flinching, and the most cautious medical officers have been deceived. There was a soldier of the 91st regiment, who in consequence of misconduct had been sentenced by a court martial to receive corporal punishment. Upon being brought to the triangles to receive his punishment, he feigned a paroxysm of epilepsy so effectually as to deceive the medical officer. A similar supervention of contortions and violent gestures occurred the second time he was paraded for punishment, and with equal success. He was brought out a third time, and again the same plan of deception was tried. The medical officer, presuming that the fits were brought on by the passion of fear, was proceeding to the commanding officer, to state that the man was then and perhaps would be at any other time unable to receive punishment, when he happened to look behind him, and saw the eye of the patient watching his motions. This led to his detection, and he received his punishment instantly.

In a feigned paroxysm of epilepsy the contortions of different parts of the body do not always come on simultaneously. When the hands are forced open they are quickly shut again; whereas in the real disease they often remain expanded, and as inflexible as a piece of wood. Foam at the mouth is commonly occasioned by keeping a piece of soap between the teeth; and in all doubtful cases the mouth should be examined, which is easily done by pressing the cheeks against the grinder teeth, and shutting the nostrils. An impostor can readily simulate a number of voluntary symptoms, such as violent muscular movements, rolling of the eyes, sighing, suppressed cries, &c. If narrowly watched he will be found to open his eyes occasionally, for the purpose of observing what effect his

tricks have upon the bystanders, and a rapid recovery commonly occurs, when it is proposed to apply the actual cautery, or any other violent remedy, thereby showing that the sense of hearing is not impaired.

Feigned epilepsy generally supervenes at more regular periods than the real disease, and frequently at a time when a medical officer is likely to be in the way, apparently for the purpose of being seen. Vaidy, a medical officer in the French army, convinced himself by moral evidence that a case of epilepsy was feigned. He told a young soldier, who had been admitted into hospital on account of epilepsy, that the real disease always came on in the morning. The man swallowed the bait, and from that time the paroxysm invariably supervened before noon. He was soon ordered to join his regiment.

A paroxysm of real epilepsy is generally distinguished by swelling and lividity of the face, irregularity of the pulse, an invincible and general contraction of the muscles, great distortion of the face, with froth at the mouth and gnashing of the teeth, the tongue being frequently bitten; by the thumb being grasped in the hand; by discharges of feces, urine, or semen; and by the paroxysm ending in profound sleep, followed by prolonged lassitude. But an insensibility to the approach or application of irritating substances is the most decided proof that can be obtained, for during a paroxysm of real epilepsy, sensation is totally suspended: hence, if any evidence of feeling can be excited by stimulants, it may generally be inferred that the disease is feigned. The agents commonly recommended for this purpose are various, but chiefly two; the access of a strong light to the eye, and the application of the vapour of hartshorn to the nose. The first of these tests is not satisfactory, for neither in a real nor in a simulated paroxysm are we commonly able to employ it so as to resolve our doubts, on account of the struggles of the patient; but

besides this impediment, there is a remarkable variety in the mobility of the irides of different individuals in health, some being scarcely affected by an increase of light, and others very much. The result of the application of the second is also inconclusive, for individuals are not invariably much affected by inhaling the vapour of hartshorn. Blowing Scotch snuff up the nostrils with a quill, is an effectual means of rousing suppressed sensation. In more than one instance I have succeeded in abruptly terminating an apparent epileptic paroxysm, by dipping the end of a flannel bandage, rolled up, in boiling water, and then applying it to the side of the patient. As the usual recurrence of the paroxysm in these cases was arrested, it was presumed that the disease was feigned. The flannel bandage, applied in the above manner, is a convenient mode of suddenly exciting vesication. Dr. Cheyne recommends introducing a portion of spirits into the eye as a most effectual method of exposing a simulator of epilepsy. The oil of turpentine has been employed in a similar manner: tickling the nose with a feather is sometimes sufficiently effectual. To rouse from comatose and faintish states of the system, the natives of India introduce into the eye a little of the expressed juice of a pod of Cayenne pepper. Pressure on the præcordium, so as to interrupt the function of respiration, has been recommended for abbreviating an epileptic paroxysm. Pouring a very small stream of water on the face of a person feigning a convulsive paroxysm, has been successful, not only in cutting short a fit, but in preventing a recurrence of the imposture*. Should doubts

* Mr. O'Reilly, surgeon to the 65th regiment, informed me, that one of the men of that corps was occasionally affected with fits, which were presumed to be simulated. He was attacked one evening in hospital, when Mr. O'Reilly put his hand on the man's chest, apparently to ascertain whether or not the heart was pulsating, and after a short period he said to the hospital sergeant, "It is now all

remain after the use of these tests, the actual cautery may be proposed in the hearing of the patient, and, if deemed necessary, exhibited to view.

But it should be recollected, that spasmodic diseases frequently run into each other, and that patients may be admitted into the hospitals under the head epilepsy, although the external characters of their disease are considerably different from those which commonly distinguish that frightful malady. I have myself seen a case where the leading symptoms were, a periodic suspension of sensibility and voluntary power, spastic rigidity of the muscles and inflexibility of the body; the paroxysm supervened daily at nearly the same hour, and usually lasted about four minutes; the patient retained no recollection of the supervention of the fit, or of any train of ideas occurring during the suspension of sensibility. I recollect having another case under my care, in some respects similar, where a certain degree of consciousness and perception remained during the paroxysm. There was an instance lately in the general hospital here, where the person affected appeared to be in a deep sleep during the fit, and had no knowledge of its occurrence until informed of it by the bystanders. Cases also are on record, where the disease was so mild as not to render it necessary for a patient to sit down during a paroxysm, and where the leading symptom, an uneasiness in the head, did not last above a few minutes. These varieties of the disease are not likely to be feigned. It may however be mentioned, that some men have qualified themselves for simulating a paroxysm of epilepsy, by the perusal of works descriptive of that disease: this was confessed in the case of a man, who, in addition to the usual gestures and contortions of feigned epileptics, excited over: carry the body to the dead-house." The man almost immediately started on his feet, and said he was quite well. He has not since been attacked with fits.

hæmorrhage from the nose by friction on the ground, discharged his urine, and grasped the thumbs in his hands.

When men are discharged on account of chronic head-ach, epilepsy, or other obscure affections of the head, it is of importance to adopt some means to prevent their re-admission into the army. This intention may in general be effected by establishing a caustic issue, introducing a seton in the neck, and allowing it to remain for some time, so as to produce a conspicuous cicatrix, or by cupping on the nape of the neck. A seton is objectionable, on account of the cicatrix being sometimes scarcely perceptible, or not distinguishable from the traces of small abscesses. Cupping is in several respects preferable to either caustic issues or setons: the effect is immediately produced, and if crossed, the cicatrices are sufficiently conspicuous. It has another advantage, in being not liable to excite erysipelas. Similar means may be adopted in cases where men are discharged on account of disease of some of the viscera of the thorax and abdomen, as dyspnœa, hepatitis, &c. &c. Schemers, and men who make a trade of enlisting in different corps, dislike being permanently marked; but when cupping is performed immediately over the viscus presumed to be diseased, and avowedly as a remedial measure, their objections are easily obviated*.

* Since last February or March a number of profligate characters have been "discharged from the army, with every mark of ignominy and disgrace." A description of each individual is transmitted to the recruiting depôts, &c. &c. in order to guard against an attempt, on his part, to be again received into the service. To render this measure effectual, it is essentially necessary that a delinquent should bear some artificial physical mark,—as traces of punishment, indicative of moral depravity, or the cicatrices of issues, setons, or cupping, showing that he had suffered under a bodily disease. Abandoned profligates of this kind never, or rarely, enlist twice under the same name.

Vomiting.—Some persons have the voluntary power of expelling the contents of the stomach by pressure on the abdomen, others by swallowing air, and perhaps by other expedients. Those who can at will evacuate their food appear in general to have received that faculty from nature: in some it seems to have been acquired by habit.

I have seen but one case of vomiting excited for the purpose of evading duty, and the man soon gave in, upon its being hinted to him that severe remedial measures would be adopted, if the symptoms did not abate. Dr. Cheyne, in his letter to Dr. Renny, gives an account of two cases of vomiting he had under his care at the general hospital, and has the candour to state, that in neither of them did he form a correct judgment: as he observes, “they will exemplify the twofold danger we incur, of being deceived by the guilty, and of unjustly suspecting the innocent.” The subject of one was a sergeant, a young man of excellent character, who was admitted for a complaint in his stomach, under which he had been suffering for two or three years. He had the appearance of ill health, his aspect being pale and delicate. Eventually he was discharged, and in about a fortnight afterwards, Dr. Cheyne met him in the vigour of health. The doctor thinks “he probably swallowed small quantities of tobacco juice, or introduced a portion of that herb into the rectum, by which he caused a delicacy of appearance.” The other was a recruit; and as men recently enlisted are more apt to feign disabilities than drilled soldiers, they are frequently suspected of pretending disease, or at least of magnifying their petty ailments, which was the case with the young man in question. He was admitted on account of a complaint similar to that of the sergeant: he was not emaciated, but his skin appeared dirty and opaque, and his pulse was slow. Although considered a malingerer, he was not treated with any severity. He died, and his body was examined: “the stomach was

found extensively diseased, the mucous membrane being everywhere varicose and pulpy."

Intellectual Weakness, Alienation of Mind, &c. — Mental weakness is sometimes dissimulated by recruits, if that can be called dissimulation, where an individual, to whom nature has not been liberal in the intellectual qualities, enlists for the purpose of procuring a livelihood. Examples occasionally occur, where a man enlists, and after a few months have elapsed it is found, that he cannot be made to acquire any tolerable proficiency in the performance of military exercise, or even to keep himself and his accoutrements clean. He is perhaps discharged; but scarcely has he received his dismissal from one corps, when he enlists in another; so that by this means many a half-witted fellow succeeds in procuring a subsistence for a series of years. Last year a recruit, named Timothy Regan, was discharged from the Company's service, at Chatham, in consequence of weakness of intellect. A few months after he was brought before a medical board, at Fort Pitt, for the same defect, he being then a recruit in one of the regiments of the line. It was then discovered that he had in a very short time received six bounties. He persisted for a short period in denying, with great effrontery, that he had enlisted repeatedly; but he at last admitted the charge, and endeavoured to pass the whole business off as a good joke. He was finally ordered to join the 57th regiment, one of the corps in which he had enlisted. Cases similar to this are not unfrequent at recruiting depôts. The want of apprehension in persons of weak mind is frequently much greater on some topics than on others; so that a man may appear not remarkably defective in intellect, when discussing subjects with which he is acquainted, although he is incapable of becoming a good soldier, and would not be approved if the inferiority of his mind was apparent; but this cannot always be discovered

during the probation of a few minutes. The weakness of a man's intellect is frequently first detected by his comrades in the barrack-room. A circumstance in some respects similar occurs, where a man who is liable to intermitting insanity enlists during a sane period. His ineligibility may however be much more difficult to detect; and on that account men, who have been discharged from the army on account of this defect, and who re-enlist, are sometimes approved. I am not aware of any means by which the approval of recruits labouring under such disabilities can always be obviated, but it may be useful for young medical officers to know in what respects they are liable to be deceived, in this as in other defects, with the view of showing the propriety of not overlooking the manifestations of mind, more than the physical proportions and efficiency of a recruit.

Mental alienation is sometimes simulated by soldiers and we are informed from high authority*, that no disease is more easily feigned or more difficult of detection. This observation can, I presume, be intended to apply only to inferior degrees of diseased mind, and not to maniacal paroxysms. That defect of the understanding which may be denominated irrationality, is perhaps more frequently feigned than any other variety of mental alienation; and when artfully simulated, persons not practically acquainted with the phenomena of disordered intellect may and have been deceived.

A medical officer can never exercise too much caution in giving an opinion in doubtful cases of mental disorder, more especially when that opinion may involve a breach of discipline, and consequent punishment. I recollect two non-commissioned officers becoming permanently insane, upon being confined on a charge of misconduct. In

* Zacchias; Beck's Medical Jurisprudence, p. 236.

these cases the probability of the affection being feigned was very strong ; and if an opinion had been given in the affirmative, it is possible they might have been both punished. That mistakes of this kind may happen is evident, from the report of a coroner's inquest, held on the body of Joseph Godfrey, as given in the Times newspaper, February 22, 1826. It appears Godfrey belonged to the 83d regiment, and served with that corps at the Cape of Good Hope eleven years. During this period he exhibited symptoms of derangement five different times, on each of which occasions he was tried by a court martial for pretending madness, in the hope of getting his discharge, and sentenced to be flogged, which sentence was successively carried into effect. Maniacal paroxysms continued to recur after he was discharged, and during one of the accessions he committed suicide, by drinking a quantity of sulphuric acid.

The following case will evince, in a very remarkable manner, the difficulty with which certain shades of mental alienation are distinguished, and the extreme caution which ought to be observed before unfavourable opinions are formed and severe measures adopted. Private Charles Louis, aged 31, — regiment of foot, complained, during the month of December, 1825, of pain in the loins, occasioned, as he said, by a sprain received the preceding July while drawing water from a well ; but which he did not mention when the accident happened. As the ailment was considered very slight he was not admitted into hospital ; he continued however to complain of pain in the loins and about the site of the cœcum. On the 26th January, 1826, he went on furlough, and returned to the regiment on the 24th of February. From this period he obstinately refused to do any duty, assigning as a reason, that he was unable ; he was then admitted into hospital, where he was kindly treated, but carefully observed. His appetite and other

functions of the body were natural, and no trace of disease could be detected. He sometimes complained of uneasiness in the region of the liver, but never represented the pain as urgent, and indeed seldom said any thing respecting his ailments, unless in reply to direct queries. He was in general remarkably taciturn, and his manner appeared to be more indicative of moroseness than mere lowness of spirits. Eventually he was discharged from hospital; but still persisted in refusing to do his duty. He was tried by a regimental court-martial, for disobedience of orders, which sentenced him to undergo corporal punishment; and, on the 15th of March, he received 175 lashes, in the usual manner, without making the slightest complaint. He still, however, declined doing duty, and was a second time tried by court-martial, and sentenced to be confined for one month in a solitary cell. When released from confinement he was ordered to pull up the grass between the stones in the barrack-yard, an employment which annoyed him more than any other punishment. His case was now brought to the notice of Lieutenant-general Sir George Murray, commander of the forces in Ireland, with a recommendation that he should be transferred to the general military hospital, Dublin. This suggestion being adopted, Louis was admitted into the general hospital on the 30th of May, where he remained under the care of Dr. Cheyne until the 12th of July, when he rejoined his regiment. During the time he was in Dublin he preserved his usual gloomy discontented manner. The greatest care was taken to investigate his case; but no trace of disease, either physical or mental, could be satisfactorily observed; and a certificate to that purpose, signed by Dr. Peile, deputy inspector of hospitals, Dr. Brown, surgeon to the forces, Dr. Crampton, surgeon-general, and staff-surgeon Stringer, was transmitted to the regiment upon his being discharged.

Shortly after Louis had joined the regiment he evinced decided symptoms of aberration of mind, which were for a considerable time supposed to be feigned; but after close observation for a period of several months the surgeon of the regiment deemed his intellect to be unsound. In July 1827 he was again admitted into the general hospital, Dublin, in consequence of mental alienation; and it is the opinion of Dr. Cheyne and the other officers of that establishment, that there can be no doubt of the reality of the mental affection*. He is still (Dec. 1827) in hospital; his manner is much less gloomy than formerly, and he shows no reluctance to discuss topics connected with his present hallucination. He however artfully eludes every attempt to extract any information from him respecting his family or early life. Among many other incoherent notions, which have entered his mind, he conceives that he is colonel of the 15th regiment, and that he is abounding in wealth; but that he is deprived of the use of it by undue means. His bodily health continues good.

* An inference may be drawn respecting the state of his intellects from the following fragment of a poem entitled "The bursting of the Mind," which he has lately composed. He gave me a copy, and expressed a wish that it should be published in a periodical work. The rhapsody commences with an allusion to Confucius, and appears to be an attempt to describe the imaginary consequences of a consciousness of knowledge previously and gradually acquired, bursting precipitately upon the mind of the Chinese philosopher.

"When suddenly struck dumb, of thought's amazing faculties bereft,
His fancy lost, memory's grand orb, a noble mind quite torn away
By all-devouring deluge sweep or whirlpool's all-exhausting force,
Like dreadful tornado's fierce destroying breath through desert hies,
Whose course consumes trees by the roots, lakes in obedience
Their sandy bottoms show, fishes and beasts fly upon air,
The rivers leave their beds exposed, creation blasted to the core,
Nature's blackened face in roots and herbs and living things is seen,
A globe of searching, desolating death displayed."

* * * * *

It would be a difficult task to state at what time his mind became unsound. Was he insane when he refused to do his duty in February 1826, or should we consider the mental disorder a consequence of frustrated hopes since that period?

Louis is a native of Woolwich, in Kent, but nothing is known respecting his connections. In 1816 he joined the independents in South America, and served with them for several years. He was wounded, taken prisoner by the Spaniards, and confined in prison for nearly a year. About the end of that period he was released, and eventually found his way to North America, whence he was sent to Halifax by a British consul. Such is the report of his comrades in the regiment to which he belongs. He enlisted in Sept. 1820 for limited service, in the ——— regiment, then on the eve of returning to this country. Shortly after the arrival of the regiment in England he demanded his discharge, on the plea of having been sworn to serve King George III, who was dead at the time he took the oath. His memorial was transmitted to Lord Combermere, then commander of the forces in Ireland, who forwarded it to the Horse Guards. The reply of his Royal Highness stated, that although Louis had sworn to serve King George III, at that time dead, he had also sworn to serve his heirs and successors; and as George IV was the lawful successor, he must be considered as legally attested. The Judge Advocate General, who had been consulted on the occasion, entertained the same opinion.

Louis was made acquainted with the decision of the Commander in Chief; but he continued to prefer a claim to be discharged, to the inspecting general officer, at every half-yearly inspection. He appears to be of a good family, much superior to his present situation; he has the manners of a gentleman, and an excellent address, writes a good hand, and uses language grammatical and correct:

he never associated on equal terms with the men, and has always been remarkably temperate.

The detection of some pretenders to madness is by no means easy to persons little familiarized with disordered conditions of the intellect. Medical officers are seldom able to procure any information of importance that can be trusted, respecting the liability of the relations of a suspected person to insanity, or concerning occurrences that may be calculated to excite or depress his mind. Perhaps the most successful mode of detecting an impostor would be, to confine him alone in a ward in which he could be overlooked. The symptoms of madness would disappear when he presumed he was unobserved. A man who feigns madness, like pretenders to other disabilities, commonly overacts his part: he never wishes to conceal his infirmity. However great his resolution and fortitude may be, he finds it difficult to evince so decided an indifference for food as many lunatics do, or to preserve that watchfulness which is so frequent an attendant on insanity.

It is very natural for regimental officers to wish to get inefficient soldiers discharged, whether their unfitness arises from physical, moral, or intellectual causes; but numerous cases occur where the general interests of the service require that men should not be discharged without much caution. This is perhaps more necessary when a man is brought forward for discharge on account of weakness of intellect, than in consequence of a physical defect. The degree of a mental infirmity is extremely difficult to appreciate, for many an individual will evince no remarkable want of endowment in conversation, who cannot be taught a particular trade or profession. Some may acquire tolerable proficiency in one trade, while they show great want of aptitude in learning another. A man may be a good shoemaker, although no degree of labour will enable him to acquire the dexterity requisite for performing the

usual military evolutions in a correct manner, or to become a clean and handy soldier: he does not acquire habit by experience. But when a man evinces no external evidence of want of intellect, how is a board to distinguish a defect of intellectual power from a want of will? The evidence of an adjutant, or a drill sergeant, that they have not been able to make him comprehend his duty, may not be deemed conclusive proof that he cannot be taught. Some time ago a man enlisted in a regiment at present (December, 1827) quartered in this garrison, who after being at drill for an unusually long period could not be taught his duty. Every exertion was made by the adjutant and drill sergeant to make him comprehend the manual and platoon exercise, but apparently without success. In consequence of this corps having been joined by another regiment, the presumed idiot was discovered to be a deserter, and a very clever fellow. I am disposed to think, that, unless in strongly marked cases, where the mind is weak on all subjects, and that weakness expressed in the countenance, or readily discoverable during conversation, no man ought to be discharged.

Two cases of intellectual deficiency happened lately in this garrison, and were both transferred from their respective regimental hospitals to the general hospital for observation and report. Richard Dorrach, 72d regiment, was admitted under the head "Amentia." He was eventually brought before a medical board, who found him unfit for the service, adding, however, to their finding, that from his youth and general appearance he would find no difficulty in re-entering the army.

The board found him unfit solely in consequence of parole evidence; but so strong that it could not be resisted. His mental defect was so little apparent, that nothing could be inferred respecting it from conversation, interrogation, &c. His countenance and manner evinced no want of

intelligence ; he could read and write, and had been brought up to the trade of a shoemaker, a business which he conducted on his own account. Yet, strange as it may appear, he could not be taught the exercise and duty of a soldier. He has been discharged.

Peter Connor, 36th regiment, was admitted under the head "Idiotcy." His aspect and manner bespoke dullness and want of intellect ; his replies were, however, pertinent, and he possessed a correct comprehension of every thing that regarded his own right. He had been two years at drill, and could be taught little or nothing of his exercise. The adjutant, in his evidence, stated, that Connor was sometimes not able to distinguish the "right from the left flank of a squad, no, nor even his own right hand from his left." What he had in some measure learned one day he completely forgot by the next. The board came to the following conclusion in his case, finding, "that he (Connor) is not an idiot ; but that his mental powers appeared of a feeble and unsusceptible kind, acquiring with great difficulty tasks and exercises that were comparatively easy to others. And they further remarked, that, although he be incapable of being drilled into an expert parade soldier, yet there are laborious orderly duties in every corps, one of which he might be found fit to perform : and the board cannot, under all the circumstances of the case, recommend his discharge, foreseeing, as they do, the probability of his speedily re-enlisting."

These two instances have been quoted to show, that, in some cases, nothing short of experience can discover unfitness for the service ; there being certain shades of mental deficiency which a medical officer, in the ordinary course of examination by *view*, *interrogation*, and *conversation*, may not be able to perceive. Similar cases are, I believe, not unfrequent, and the cause of some loss annually to the service.

Cachexia and Debility.—An ill-conditioned habit of body, and great weakness, is occasionally simulated for various purposes, such as to procure leave of absence from foreign stations; and to corroborate verbal statements, substances are swallowed to make the face pale. I have known a person in ordinary health succeed in a manoeuvre of this kind, by indulging freely in wine, and depriving himself of sleep for two or three nights previously to his being examined by a medical board. His disordered attire, unshaven chin, hollow eye, depressed jaw, pale and contracted countenance, so changed his usual appearance, that he was scarcely recognizable by his acquaintances.

There are few points of duty, which demand greater circumspection on the part of a medical officer, than that of granting certificates regarding the health of officers. He should invariably examine particularly into the circumstances of a case, without being influenced in his conclusion by the testimony of the patient or that of his medical adviser, except in so far as parole evidence may assist investigation. On this subject I will take the liberty of transcribing a copy of a “General Order,” which is well calculated to illustrate the propriety of proceeding with much caution in certifying with regard to doubtful disabilities.

GENERAL ORDER.

Office of Ordnance, 23d June, 1826.

The Master-General and Board have ordered, that Mr. ——— should be dismissed from the Ordnance, in consequence of misconduct so flagrant, that they have directed the circumstance to be promulgated to the department at large, by this general order.

Mr. ——— was permitted to go to the country, on temporary half-pay, until the permanent state of his health could be ascertained, in order that the Board might be

able to decide whether he should be recommended for a pension upon retiring from the service.

During an absence of eighteen months several representations and certificates were transmitted by Mr. ——— describing his state of health to be so deplorable, that he could not, without great risk, be removed to Woolwich, from his country residence at ———, to be there examined by a medical board.

The Board desired that Mr. ——— might be examined by the army medical officer at Hull, whose certificates, on two occasions, confirmed the certificate of Mr. ———'s physician, that it would be improper for him to risk a journey to Woolwich.

In the mean time Mr. ——— travelled twice to Hull (a distance, from ———, of 40 miles), but he persisted in the assertion, that it was dangerous for him to travel to Woolwich; and as he very generally neglected to answer, for several days, the letters which were addressed to him, his half-pay was ordered to be stopped until he should present himself at Woolwich. Inquiries were made as to the mode in which Mr. ——— passed his time; and it was ascertained, that, at the moment when the Board ordered that he should be examined by a medical board, he was in Brighton, engaged in the superintendence of the construction of buildings for a private individual; that he hastened from Brighton to ———, to answer the Board's letter, and thence proceeded to Hull; and that he had carried on business at Brighton, for several months, during which he was absent from his duty, by leave, on the plea of sickness to such a degree as to be unable to go to Woolwich or to appear before a medical board.

It has thus become the duty of the Master-General and Board to dismiss Mr. ——— from the ordnance department, after twenty years service, without recommending him for any of the benefits to which the faithful servants of

the public are entitled, when disabled from serving by their infirmities.

By order of the Master-General.

(Signed)

WM. GRIFFIN, Secretary.

Mr. ——— was examined at Hull, in April 1825, by an army medical officer, and again in March 1826 by another. On both occasions he was accompanied by his domestic physician, upon whose testimony, in regard to the nature of the symptoms, the certificates were in a great measure founded. The medical officer, who signed the certificate in 1826, candidly admits that he was greatly influenced in the opinion he gave by extrinsic circumstances, namely, the rank and character of Mr. ———; but chiefly by the report of the physician, on whose veracity he *then* placed implicit credit. On the occasion when this officer waited upon Mr. ———, which was at an hotel in Hull, he found him sitting in an arm chair, with the body bent forward as if unable to sit upright. He affected to suffer severe pain when the slightest pressure was applied to the lumbar region. Having naturally a sallow complexion and a spare habit, it was inferred, from the account he gave of his feelings and the statement of Dr. ———, that he was suffering under greatly impaired general health. The expressed opinion of his physician is subjoined in his own words.

“ The principal ailments of Mr. ——— were general debility, with *cadaverous look*, much emaciation, no appetite, great pain in the lumbar region, occasional difficulty in voiding his urine, stools dark and clay-coloured, also pain, and that at times very severe, in the epigastric region, and circumscribed as if indicating spasm or stones in the gall-ducts. Having suffered for years under these ailments, I felt no hesitation, after trying the effect of various

remedies, in giving it as my opinion, that he never would again be fit to resume the sedentary duties of his office."

Hydrocele.—A tumefaction resembling this disease has been produced by puncturing the skin of the scrotum, and inflating the cellular membrane. During the late war, some medical men in France were so venal as to receive bribes to perform this operation upon conscripts, with the view of thereby obtaining an exemption from military service.

Physconia.—A conscript, who had the extraordinary power of greatly distending his abdomen by swallowing air, availed himself of this faculty to repeatedly deceive a board of French medical officers, and thereby succeeded in obtaining an unqualified exemption from military service. It appears that he had acquired this faculty during childhood. He had a suit of clothes adapted for his fully expanded size, in which he regularly appeared before the municipal administration for inspection. The trick was eventually divulged by his sister, but not until he had from circumstances been placed beyond the reach of the conscript laws.

During the summer of 1825, a private belonging to one of the regiments in this garrison, became affected with a remarkable enlargement of the abdomen. The character of the man was excellent, and not the slightest suspicion of fraud in regard to his assumed disability was entertained. His commanding officer being greatly interested in his case, requested an eminent civil medical practitioner to visit him in the regimental hospital, along with the surgeon of the corps, in the hope that he might suggest some efficient means of recovery. He did so, and recommended a large issue to be made over the loins, a measure that was productive of no advantage. Recovery being despaired of, he was transferred to the general hospital, as a preliminary measure to his being discharged. On admission

into that establishment, staff-surgeon Stringer was struck with the discordance which existed between the healthy appearance of his countenance and the condition of his abdomen, as inferred from its size. Suspicion led to inquiry, and eventually it was discovered, that the impostor occasioned the appearance of physconia by elevating his spine at the loins, when placed on his back for examination. Finding that the artifice was detected, he very wisely allowed his abdomen to subside under the use of some cathartic medicines, and in little more than a week he was sent back to his corps perfectly cured. Facts, after disclosure, are generally supposed to be simple. I have only to observe, that the surgeon of the regiment to which this man belonged was experienced, able, and attentive. Any fraud, therefore, that escaped his detection, may be overlooked by another officer.

I was informed by Dr. O'Hara, apothecary to the forces, that some time ago, when the 84th regiment was quartered in Dublin, a number of patients, from thirty to forty, belonging to that corps, were admitted into the general hospital, on account, as was stated in the admission ticket, of dropsy and intermittent fever. The leading symptoms were, great distension of the abdomen, and excessive thirst. On account of the number and similarity of the cases of this disease, Dr. Harvey, physician to the hospital, eventually concluded that the symptoms were excited. He then prescribed frequently repeated doses of glauher salts, dissolved in a weak infusion of tobacco. In most of these cases the tympany disappeared rapidly: a few held out for some time, but all were eventually sent back to the corps with collapsed bellies, and by this means the epidemic was arrested. The constant nausea occasioned by the mixture soon exhausted all their fortitude. A considerable number of the cases first admitted succeeded in obtaining their discharge. The means by which the

tympanitic symptoms were occasioned never were correctly ascertained. It was by some conjectured to have been excited by swallowing large quantities of chalk and vinegar.

Physconia was a very prevalent disease in the 2d battalion of the royals for a number of years. About the year 1817, when the corps was serving in the Deccan, this complaint formed a large item of the sick list. Every remedial means that promised to be useful were tried at the head quarters of the regiment, and when they failed, the patients were transferred to the coast along with the other sick, for the purpose of being invalided and sent to Europe. There were sometimes as many as from fifteen to thirty cases of physconia belonging to this corps in the depôt Poonamalee at the same period. It ought to be mentioned, that the 25th dragoons did not then send a single case of this disease to the coast, although it was under canvass in the same camp where the royal regiment was stationed. After some time it was surmised, that the distension of the abdomen was in a number of cases simulated, and although eventually the suspicions were found to be well grounded, the means by which it was excited were never satisfactorily discovered. Common rumour attributed it to swallowing toddy in a state of fermentation, with large quantities of congee (rice water), and a small portion of soap. In many of these patients there was considerable incongruity between the evident indications of health in the countenance, and the appearance of disease in the abdomen. They were inspected every morning by a medical officer, and in some the abdomen was then so greatly distended, that the waistband of the trowsers did not meet, but was connected by a cord six or eight inches long. Those individuals who were suspected of malingering were smartly purged, &c. and had their liberty restrained. In many of these cases, every appearance of physconia disappeared during the afternoon, but they often

found means by the succeeding morning to have their bellies as much distended as ever. Some however became tired of this discipline, and got well rapidly, others held out for a considerable time. All the suspected cases were eventually sent back to the corps. Notwithstanding the ill success of many of the impostors, still perhaps a few were fortunate. The practice of simulating physconia continued for a number of years among the men of this corps. It prevailed in some degree in 1821, when the late assistant surgeon Bolton assumed the medical charge of the regiment. Being an active zealous officer, he exerted much of his time and talents to reduce a heavy sick list, and to suppress that disposition to malingering which had got among the men. This measure rendered him odious to impostors, as the event too clearly showed; one morning, when he was going to the hospital, while the regiment was on duty at Trichinopoly, a schemer and late patient of his, named Downhard, presented his musket at him. Mr. Bolton saw the motion, held up his hand, and begged him to desist. Downhard took the musket from his shoulder for a moment, but returned it, saying, "No, sir, you blistered me, &c. &c.; it must be done;" and then fired. The ball passed through Mr. Bolton's body, and he expired a few hours after. Downhard was hanged in front of the regiment, glorying to the last in the atrocious act he had committed.

I have seen several cases of men who feigned an enlargement of the abdomen by means of a deep inspiration, and keeping it in a protruded state by short expirations. When any doubt exists respecting the nature of the distension, the man may be examined during sleep.

Incredible as it may appear, there is good authority for the fact, that among the French conscripts, ascites was excited by injecting water into the cavity of the abdomen*.

* Moricheau Beaupré.

Scrofula.—To simulate traces of scrofulous disease of the neck, ulcers are sometimes excited below the angles of the jaw; and for the purpose of rendering submaxillary cicatrices more effectual, the French conscripts used to apply the juice of euphorbium or pounded garlic over the upper lip and nose a few hours previously to examination.

Jaundice.—The yellow colour of the skin in this disease has been simulated by painting it with an infusion of the root of the *curcuma longa*, tincture of rhubarb, an infusion of soot, &c. Hitherto the simulators of jaundice have not effectually succeeded in colouring the eyes, although smoke has been employed for this purpose. It is said, that clay-coloured stools have been imitated to perfection, by taking daily a small quantity of muriatic acid*.

Cutaneous Affections.—Some conscripts in France having accidentally discovered, that certain articles of diet excited an efflorescence or eruption on the skin, successfully availed themselves of this gastric sympathy, and pretended that the temporary cuticular discoloration was a chronic cutaneous disease, thereby obtaining an exemption from military service. With a similar view, acrid substances, acids, &c. have been applied to the skin. Porrigo (*tinea capitis*) in the active stage, is sometimes simulated by applying nitric acid to the head, after protecting the face with fatty substances; but the chronic state is imitated by the use of depilatories of different kinds, applied sometimes in patches, so as to resemble the porrigo decalvans. One individual succeeded very well in simulating tinea, by means of a paste, composed of rancid butter, honey, sulphur, and a small quantity of powder of cantharides: the head exhaled an extremely fetid odour, and the man would have gained his end, if the examination of the scalp had not been very carefully performed.

* Elements of Medical Jurisprudence by Dr. Beck. Dunlop's edition, page 9.

Deafness.—This defect is frequently pretended by recruits, as also by deserters, and other culpable individuals, who find themselves in the provost guard. Deafness is difficult to simulate consistently. When a conversation has been commenced with a man, who pretends that he labours under this disability, he will not improbably continue to answer questions after the voice has been gradually lowered to a moderate tone. A recruit, from Cork, who joined the depôt of the East India Company at Chatham, alleged that he had almost totally lost the sense of hearing, and the evidence of his comrades went to support his testimony. Dr. Davies admitted him into hospital, and put him upon spoon diet. For nine days, Dr. Davies passed his bed without seeming to notice him during his visits to the sick. On the tenth day, he felt his pulse, and made signs to him to put out his tongue; then asked the hospital sergeant what diet he gave the man. "Spoon diet," replied the sergeant. Dr. Davies affected to be very angry, and said, "Are you not ashamed of yourself, the poor fellow is almost starved to death; let him instantly have a beef steak and a pint of porter." Murphy could contain himself no longer; he completely forgot his assumed defect, and with a face full of gratitude addressed Dr. Davies, saying, "God Almighty bless your honour, you are the best gentleman I have seen for many a day."

The accidental detection of one impostor may contribute to suggest means for the conviction of others. Peter M'Donough, a private in the 75th regiment, while it was stationed in Jersey (1810), averred that he had lost the faculty of hearing, and for three or four months he was kept in hospital for the treatment of this defect. When the regiment was about to embark for Sicily, the hospital establishment was broken up, and the sick accommodated with their respective companies in barracks. M'Donough, having been relieved from hospital restraint, retired with

two of his companions to a wine shop, where they passed their time in the way soldiers commonly do in a public house. Confiding in M'Donough's incapacity of hearing, one of his companions addressed the other, by saying, "Let us call for more liquor, and leave Mac to pay the expense." Mac soon evinced that he knew quite well what his friends had in contemplation, for he exclaimed, "By J——s you will not do any such thing." The circumstance was reported to the commanding officer, and the fraud acknowledged. Ever since, he has conducted himself like a good soldier, and is still (1826) in the corps.

Some of the conscripts of France not only pretended to be deaf, but they excited diseases of the ear. *Ulcers in the ear with fetid discharge* were simulated, by introducing a tent imbued with blistering plaister into the external meatus, and repeating the application until the tube became ulcerated and a discharge of puriform matter established. The fetid smell was imitated by dropping into the ear a mixture composed of an empyreumatic oil, assafoetida, and old cheese. Deafness was sometimes excited by introducing a pea into the external ear, as also by injecting an irritating fluid into it, thereby causing inflammation and temporary loss of function. Disease of the ear has been effectually simulated by injecting pus into the auditory tube, and even by simply introducing a little honey into it.

Deaf-dumbness.—This defect is occasionally simulated by soldiers, who wish to obtain their discharge; and, however improbable it may appear, some have played their part so well, as for a long time to escape detection. A trooper, of the name of M'Keon, who belonged to the 7th dragoon guards, when it was quartered at Piershill barracks, affected one morning to be both deaf and dumb. No such disability had existed the previous evening. Many means were attempted to excite him to indicate that he possessed the

sense of hearing, but without success. Firing a pistol close to his ear produced no effect. After keeping him a long time in the regimental hospital, he was sent to the Edinburgh infirmary, and was discharged from it as incurable. No noise, however sudden, or artfully employed, succeeded in appearing to rouse his attention. Every one eventually thought the assumed defect real, and his situation excited the pity and commiseration of the officers of the corps. At the end of about a year he was recommended to be discharged, and left Dundalk, where the regiment was quartered, on his way to Dublin, to pass the invaliding board for a pension. During the first day's march he got intoxicated, and at the same time recovered the use of his tongue. His escort brought him back to the regiment next day, but before he arrived his deaf-dumbness had returned. He was tried by a court martial, and sentenced to receive eight hundred lashes; but as he still held out, it was deemed advisable to send him to the general hospital in Dublin, that he might be inspected by the medical officers of that establishment, before the sentence of the court martial should be carried into effect. Here various attempts were made to induce him to give in, and among other means used for that purpose, he was informed, that if he would return to his duty, the sentence of corporal punishment would be remitted, a promise which produced no immediate consequences. Upon admission into hospital, he was for some time accommodated in a ward in company with several other patients, but was afterwards confined in a solitary cell, with no other sustenance than a small allowance of bread and water. The orderly who attended M'Keon was instructed to give him his scanty fare, and to clean the cell daily, but on no account to speak to him. In this manner things went on for nearly three months, when one morning the pretended deaf-mute accosted the orderly with "Good morning to you, James." James

was completely astounded for some time. He soon however so far regained his self-possession as to secure the door, and to make all haste to inform the steward of the hospital of what had taken place. When M'Keon was interrogated as to how he had recovered the faculties of hearing and speaking, he stated that he had had a dream, and that when he awoke he found that the long lost functions had returned. He was not punished. He returned to his duty, and conducted himself with great correctness for a considerable time, but eventually deserted, taking with him his arms, accoutrements, &c.

This is a good instance of the surprising obstinacy and perseverance with which some simulators will persist in prosecuting a scheme to obtain their discharge. The detection of a fallacy of this kind ought not to be difficult; although it may be very hard to induce a simulator to give in. If a person has acquired the habit of speech, and is able to move his tongue, he is certainly an impostor should he pretend to be dumb.

Contractions.—This is one of the most frequent of the feigned disabilities of soldiers. Many an impostor has obtained his discharge by a contraction of the elbow or knee joint. The defect is commonly attributed to rheumatism in the first instance. In consequence of inaction, sometimes aided by tight bandages, put on by stealth, the limb becomes occasionally more or less extenuated. The suspicion of a medical officer is sometimes not excited until an impostor presumes he has nearly effected his purpose; and if a schemer of this kind happens to be transferred to a new medical attendant, his chance of succeeding is greatly augmented. The means adopted by schemers to gain the same end are very different. Some will not allow the joint to be touched, but scream and bellow as if they were upon the rack, when the slightest attempt is made to straighten the limb. Others affect great

anxiety to be cured, or at least offer no obstruction to the use of means, but seem to endure the pain occasioned by the various remedies with the greatest fortitude. It is sometimes very difficult to come to definite conclusions with respect to impostors, who feign contractions; as some degree of disease may supervene in a joint without any well-marked external character.

The investigation of a case should invariably be conducted with care and patience, and in this as in most other feigned disabilities, a medical officer should not profess to discover imposture at the first examination, even although the evidence of fraud may appear pretty satisfactory. Until he becomes acquainted with a man's manner, as well as the more important facts connected with the history of his defect, it is in general not advisable to come to a definitive conclusion on the subject. Mildness, firmness, and indirect observations, have frequently a powerful effect in determining an impostor to abandon by degrees a scheme of imposition.

When, after due care in the examination, it is presumed that contraction is feigned, various means of conviction may be tried. Some men cannot endure repeated shocks of electricity, and consequently report favourably of its influence in relaxing the contracted joint: other individuals will bear the application of this agent in almost any degree without flinching. Gradually stretching a feigned contracted limb by means of a pulley, and when fully extended keeping it in that state for a longer or shorter time by the aid of a strong splint, and repeating the operation daily, sometimes induces an impostor to give in. The pulley should be avowedly used only as a remedial measure, and the strictest care ought to be taken to conceal whatever suspicion of deception may be entertained. When a malingerer of this kind discovers, that the existence of his defect is doubted, he is liable to

become the more obstinate, and many would lose their lives rather than confess the fraud. When matters are managed judiciously, it is sometimes amusing to see an impostor lending his ready aid to fix the pulley, all the while he is congratulating himself on having deceived his medical attendant. Many individuals have feigned contractions for two or three years without being convicted, and finally obtained their discharge on that account. There was a man named M'Donel, belonging to the 2d battalion of the royals, while it was on the Madras establishment, who feigned a contraction of the knee joint. The medical officer of the corps was convinced of the fraud, but failed in convicting the impostor. But indeed the obstinacy of this man was remarkable; when the surgeon lost all hopes of success, he was transferred to the discipline of the commanding officer, who had him brought daily to the orderly room, and there under his own eye he was extended upon a cot, his contracted leg straightened, and retained extended, in which position he was kept for two hours. This measure was continued for a long time, but without effect; the impostor persisted in contracting the knee whenever the ligatures were removed; and the endurance of his commanding officer being at the end of about eighteen months exhausted, he obtained his discharge, although the fraud was completely demonstrated. The same means which lead to the conviction of one impostor, may not be effectual in a similar case; hence a medical officer will require to vary his measures. When the flexor muscles of the leg appear to be voluntarily contracted, it may be proposed in the hearing of the patient to cut the tendons across, should recovery not soon occur. Let him then be allowed a week or a fortnight to deliberate on the business. Should an amendment not occur in that period, he may be removed to an operation room, where care should be taken by a display of instruments to abate his courage. Being laid upon a low table,

and every thing prepared for the operation, let his face be covered, while two stout persons have their hands upon the knee, ready to press it down as soon as they see a paper-folder drawn firmly across the tendons. This manœuvre may be managed so as to make an impostor believe that the tendons are divided, when it is to be hoped he will admit that the cause of the contraction has been removed. A strong splint ought then to be placed along the under surface of the limb, and the knee so effectually covered as to prevent his acquiring any information respecting the integrity of the tendons, until the medical attendant thinks fit. In similar cases, Baron Percy recommends the patient to be placed upon a pedestal, a little distance from the ground, on his sound extremity. If the defect be only pretended, he will probably soon stretch out the contracted limb, to prevent himself from being hurt by falling, as he is unable to stand long on one leg. The Baron states, that by this means he succeeded in convicting twelve suspected cases. But perhaps a still better plan is to place a simulator on a small platform a few feet from the ground, and to attach a weight of forty or fifty pounds to the contracted leg. Unless he possesses an unusual share of fortitude, he will soon be glad to support himself equally on both extremities.¹ He may be kept on the platform for a period of from one to three hours. This plan succeeded most effectually in convicting three cases. A regimental surgeon of my acquaintance, succeeded in convicting a man who feigned a contraction of the knee-joint for a considerable time, by making him lie on his belly on a long barrack table, and appending a weight to the heel of the affected extremity; he continued to hold up his foot for a longer period than was expected, but the voluntary contraction gave way at last and rather suddenly. Convicting a simulator does not

always make a good soldier of him; the perverted disposition too often remains. If he should not succeed in one scheme, he tries another; and if he meets with some insuperable obstacle to obtaining his discharge on account of disability, he frequently finishes his career by desertion.

To illustrate the obstinacy with which an impostor will sometimes persist in pretending a defect in one of his limbs, I may particularize two cases. R. Haddock was approved at this dépôt as a recruit for the 61st regiment, about the end of March, 1825. During a scuffle with a comrade on the 28th of April, his right arm was slightly contused, and he was in consequence sent to hospital, where he evinced a disposition to make the most of the slight injury he had received. He was however discharged cured in a few days. On the 3d June, he joined the 61st regiment, at Limerick, and upon examination by the surgeon was considered ineligible for the service, in consequence of a "contraction of the right arm." Three days after he was examined by a medical board, who found "that he had a subluxation of the right elbow joint, in consequence of which the muscles were contracted," and recommended that he should on account of his infirmity be discharged, a measure which accordingly took place. The board was pleased to add to its finding and recommendation, that no medical officer, who did his duty correctly, would approve of a man so disabled as Haddock. During the month of November, 1825, he re-enlisted at Sligo for the 12th regiment, and was approved, first by Dr. Irwin, deputy inspector of hospitals, and subsequently by myself. On the 21st February, 1826, I was called upon by a letter from Colonel Hart, inspecting field-officer, to explain, for the information of Major General Sir Colquhoun Grant, the circumstances under which I approved of Haddock. Along with this letter were copies of the proceedings

of the board, held upon this recruit at Limerick, and a communication from Brevet Lieutenant Colonel Bayly, commanding the dépôt, 12th regiment, addressed to the deputy adjutant general, stating that Haddock was ineligible for the service, on account of a "recent fracture of the arm, so that he is incapable of lifting any weight," and "an asthmatic affection with which he has been afflicted for several years past." In my reply to Colonel Hart's communication, I stated, that when I examined Haddock, he was in every respect an eligible recruit, and that I thought it probable his disabilities were feigned. On the 4th March, he was examined by a medical board at Cork, who found him free from disease and disability, and recommended that he should not be discharged. He embarked for Gibraltar, on the 11th April, to join the head quarters of the regiment, and had not long joined when he pretended he was unable to do his duty, on account of a defect of his right arm, which was presumed to be feigned by the medical officers of the corps. A medical board was assembled for his examination by order of Dr. Hennen, and he was found free from any disease or defect, which could disqualify him for duty. Still he continued to affect disability, and refused to attend drill. He was then tried by a court martial, and sentenced to receive two hundred lashes, a penalty which was inflicted. His disposition to feign infirmities was still unsubdued. He continued to pretend that he was unable to do his duty, until the commanding officer threatened to bring him before a general court martial, a measure he knew would be carried into effect, as well as its consequences: he then returned to his duty*.

The subject of the other case belongs to the rifle bri-

* I obtained my information respecting Haddock's conduct at Gibraltar from Assistant Surgeon Dealey, who formerly belonged to the 12th regiment; but is now in the 15th hussars.

gade. On the 20th August 1826, he was received into the general hospital of this garrison, with the following remarks upon his admission ticket.

Dublin, 18th August 1826.

“ Thomas Batts, 1st battalion rifle brigade ; disease ‘ contracted knee.’

“ The bearer was attacked with fever fourteen months ago, and when convalescent his knee became contracted. He remained under medical treatment, under charge of Drs. Burke and Armstrong (1st rifle brigade) for the space of two months : he was afterwards attended by Dr. Purdon, of Belfast, staff surgeon ; when at Newry by Staff Surgeon Brown ; and at Cavan by Dr. Byrne, surgeon to the Cavan Militia ; and subsequently by myself for the space of four months.

“ The treatment employed, during my attendance, has been stimulating embrocations and friction, and an endeavour, by mechanical means, to reduce the contraction. I cannot say that these means have proved beneficial.

(Signed) M. B. Assist. Surg.”

Batts is an *Englishman*, he has hitherto preserved a good character, and has been about eleven years a soldier.

It does not appear by the admission ticket, that any doubt was entertained in regard to the reality of a morbid affection of the left knee joint. He was however soon suspected of being a schemer at the general hospital, and various means were tried to detect and convict him. The joint, for a long time, was made straight by means of a pulley, and kept in that state for an hour or two at a time, by a strong piece of wood upon which the limb was braced. As soon, however, as the machinery was removed the joint resumed its former contracted state. During the month of December 1826, Staff Surgeon Stringer reported to the commanding officer of the dépôt

of the rifle brigade, that he thought Batts an impostor, and recommended his being ordered to join his corps. On the 2d January 1827 he was discharged, and sent to join the depôt, which was then stationed at Drogheda. I am not aware what measures were adopted with him while with his own corps. On the 13th March he was re-admitted into the general hospital with the same degree of contraction of his knee, and limp in his gait, that he had when he was discharged.

Towards the beginning of May it was suggested, in his hearing, that as the contracted joint had not sensibly improved it would be advisable to try the influence of a warmer climate, and with that view he should be transferred to the coast of Africa. Nearly about the same time he was placed on a small stool, and a half hundred weight appended to the contracted limb, in which situation he was kept for a short period. He complained much of the uneasiness occasioned by the application of the weight, and was evidently afraid of a repetition of the remedy; it was also evident that he did not relish the prospect of being transferred to Sierra Leone. During the months of June and July he said he thought his leg was becoming more straight, and it was then supposed that he was in a fair way of giving in. He moved about more than he had done, and it was observed that he appeared to be in better spirits. These hopeful prospects soon disappeared, and on the 26th October 1827 he was brought before a medical board. As this man has, so far as I know, not returned to his duty, I have given the proceedings of the Board in full.

General Military Hospital, Dublin, 26th Oct. 1827.

“Proceedings of a board of medical officers, assembled by order of Dr. Renny, director general of hospitals in Ireland, to inspect private Thomas Batts, 1st battalion rifle brigade, and to report whether he is unfit for the service in consequence of an alleged contraction of the left knee joint.

President, Dr. PEILE,

Deputy Inspector of Army Hospitals.

Members, THOMAS BROWN, M. D., HENRY MARSHALL,
Surgeons to the forces.

EVIDENCE.

Mr. J. Stringer, surgeon to the forces, and on duty at the General Hospital.

“On what account did private Batts come under your care?—On account of lameness, said to be occasioned by contraction of the left knee joint.

“How long have you had charge of him?—He was admitted into hospital, under my care, on the 20th August 1826, and discharged on the 2d January 1827. He was re-admitted on the 13th March, and is now in hospital.

“What is your opinion of the present condition of the left knee joint?—I am unable to discover any disease in the structure or mechanism of the joint, and my conviction is, that no disease exists.

“Have you ever entertained a different opinion?—Never.

“On what account was he discharged and sent to the depôt of the brigade last January?—He was discharged with the concurrence of Mr. Crampton, first, because I thought he had no real disease or disability, and secondly, on the presumption that more efficient measures might be adopted with his corps, to induce him to return to his duty, than was expedient at the general hospital.

Mr. Crampton, Surgeon General in charge of the surgical division of the General Hospital.

“What is your opinion of the present state of private Thomas Batts’ left knee joint?—That it is free from disease.

“Have you ever entertained a different opinion?—Never.

“On what account was he discharged from the hospital last January?—He was discharged because my opinion was more decided then than it is now, as to his being free from disease.

“What is your opinion of his general health?—I think his aspect is unhealthy.

“Do you think there is any disability of the left inferior extremity, except the alleged defect of the knee joint?—The appearance of the limb generally, and in particular its diminished bulk as compared with the other extremity, induces me to entertain some suspicion of the existence of a diseased state of the sciatic nerve.

“May not the diminished bulk of the limb be accounted for by the long continued state of inaction in which it has been kept?—Perhaps it may be so; he has for several weeks been walking about without restraint.

FINDING.

“The Board has carefully examined Thomas Batts, and particularly his left knee joint, set forth as the cause of his disability, and concurs with the opinions given in evidence by Mr. Crampton and Mr. Stringer, namely, that it is not diseased. He generally keeps the joint slightly bent, and upon approaching it with the hand he puts the flexor muscles into vigorous action, which requires considerable force to overcome. By the application of some force, however, the limb becomes straight. The knee evinces none of the usual characters of disease, as swelling, redness, or in-

creased temperature. The left leg is about half an inch smaller than the right, a circumstance which may arise from inaction, or it may be the natural formation of the limb. He states that he has been lately suffering from rheumatic pains. The Board is of opinion, that Thomas Batts is not rendered unfit for his Majesty's service, either by the alleged loss of power of the left knee joint or by rheumatism*."

Batts left Dublin early in November, to join the dépôt of the rifle brigade, now stationed in Devonport. On the 4th December he was in excellent health, but had not given in.

A morbid contraction of all the fingers of a hand is sometimes pretended. Contractions of this nature may be overcome, and the impostor convicted, by introducing a cord with an eyed probe between the fingers and the palm of the hand, then gradually applying weights so as to expand the fingers. General Ross cured a case of clenched hand very rapidly when he commanded the 52d regiment. The soldier asserted that the fingers of his right hand suddenly became contracted, so that his fist remained permanently closed. He was taken into hospital, and kept there without any symptom of improvement, until the general's patience was exhausted. He was then accommodated in a solitary cell, in which was an elevated shelf; his left hand was secured to his body, and a loaf of bread and a pitcher of water placed upon the shelf in such a manner that he was unable to partake of them without using his contracted hand. At the end of the first twenty-four hours the bread and water remained untouched, but, by the termination of another diurnal period, both had disappeared.

Incontinence of Urine.—This is a rare disease, although

* The board considered Batts not *unfit* from physical causes, and therefore thought it would be bad policy to discharge him: he is, however, from moral defects not an eligible soldier.

it is frequently feigned by soldiers. Recruits sometimes simulate it with so little art as to allow the urine to dribble from them during examination. If the bladder is capable of retaining a considerable quantity of urine, it may be inferred that the assumed defect is not real; hence a simulator may sometimes be detected by coming upon him unawares, and desiring him to urinate *instantly*, or by using the catheter. Impostors have also been detected by exhibiting a full dose of opium so as to produce sleep, and observing if the bed be wet before the suspected person awakes. A medical officer in the French army treated a doubtful case of this affection by ordering the man to receive twenty stripes on the breech, with the avowed intention of strengthening the kidneys: one dose effected a complete cure. Instances sometimes occur, where men discharge the urine during sleep, probably the result of a bad habit acquired during childhood: these cases ought to be placed under a course of moral discipline.

Excretion of Calculi.—This affection is occasionally pretended. Very lately a private of the 73d regiment complained of pain and uneasiness in the region of the kidneys, and eventually made a point of showing his urine with sabulous concretions in it. After a considerable period had elapsed it was discovered, that the sandy particles found in his urine were obtained from a stone in the wall at the head of his bed; his comrades having found him at work rasping the stone in the middle of the night, led to his detection. A chemical investigation of pretended urinary concretions furnishes a ready means of detecting this fraud.

Hernia.—This infirmity has been simulated by persons who possessed the power of drawing the testes up to the rings of the external oblique muscles, availing themselves of this power to deceive medical officers. I have seen a number of individuals, who possessed this faculty, some

being able to elevate the testicle of one side, but not the other. According to Baron Percy, there are individuals who can voluntarily retract a testicle within the abdomen. The subject of the following case seems to have possessed this power. Pat. Gafney enlisted in the 2d battalion of the rifle brigade in 1825. Being a great drunkard, and having been repeatedly convicted of theft, for which he had twice undergone corporal punishment, the commanding officer determined upon representing his conduct to the Commander-in-chief, and soliciting permission to discharge him with ignominy from the service. While measures to this effect were in progress, Gafney reported that he had become ruptured. He was forthwith examined by Dr. Connell, assistant surgeon of the brigade, who found a slight degree of fulness over the left inguinal ring. On prosecuting the examination he soon ascertained that the left testicle was not in the scrotum. By means of considerable pressure, applied immediately above the ring, the testicle was excluded; he continued, however, for some time to exert the voluntary power he possessed over the cremaster muscle, which was considerable, to elevate the testicle.

Before Gafney enlisted in the rifle brigade he had served several years in the royal marines, from which corps he had been discharged in consequence of inguinal hernia, the result of service, with a pension of five-pence a day. This fact was discovered, shortly after he enlisted, by his coming to the orderly room with his instructions, and showing them to the clerk, informing him, at the same time, that the rupture was cured. It would appear that he had, by fraudulent means, succeeded in obtaining a pension from that corps; but he failed in his attempt to deceive in the rifle brigade. He was discharged from the army with every mark of ignominy in September, 1827.

Some years ago a paper was picked up in a ward of the general hospital of this city, containing a "receipt for

making a rupture." The scrotum was to be punctured with a corking pin, and then by means of a piece of tobacco-pipe it was to be blown up with air; the same operation was to be performed on the other side, if a double rupture was required. Poultices were to be applied to reduce the inflammation. The manuscript was supposed to have been dropped by a man belonging to the 18th hussars, who had been left in hospital when the regiment embarked for England. He joined his corps at Rumford in Essex, with his scrotum greatly enlarged. According to his own statement, the swelling came on in consequence of his jumping from a window shortly after he left the hospital. On his landing at Liverpool, it became so large and painful that he could not walk, and was obliged to be forwarded in a cart. When the scrotum was felt, a crepitus was perceptible. The swelling was in all likelihood excited, and probably by the means directed in the "receipt." This man succeeded eventually in obtaining his discharge, by simulating disease of the hip joint*.

Hernia has been feigned by mendicants with the bladder of an ox, containing a sponge filled with a mixture of blood and milk, and ingeniously appended at the groin.

Ulcers on the Legs.—This affection is frequently excited by recruits, and sometimes by old soldiers. The agents commonly employed are corrosives or irritants, such as nitric acid, acetate of copper, quicklime and spirits, lime and soap, bruised garlic and vinegar, the milk-thistle, the bark of the spurge laurel, and the juice of the euphorbium. The last substance is the agent generally employed in India. Some excite ulcers by mechanical means, particularly by abrasion. This is effected by rubbing the skin of the leg over the shin bone with a small quantity of sand interposed between the thumb and the leg, the sand being allowed to remain on the irritated surface. Should the

* Dr. Cheyne's Letter to Dr. Renny.

inflammation thus excited not be deemed sufficient, the operation is repeated. Ulcers of a very intractable nature are rapidly excited upon old cicatrices by this means. Ulcers are also sometimes occasioned by means of hard bodies strongly pressed upon the leg. Very lately, one of the recruits belonging to this dépôt was accidentally detected with a halfpenny imbedded in an ulcerated surface on his leg, surrounded by a tight ligature. Ulcers are sometimes pretended only. This simulation is effected by glueing a portion of a spleen, or the skin of a frog, upon a part of the body. Cancers have been successfully simulated in this manner: the surface is kept moist by the agency of a small sponge imbued with blood mixed with water, or milk, which is placed under the dressing.

Artificial ulcers have in general a more distinct margin than those which are said to occur spontaneously and may be considered indicative of an impaired constitution.

To prevent impostors from applying irritating substances to ulcers on the legs, and thereby retarding their recovery, it is frequently necessary to seal the bandage, for the purpose of preventing a furtive removal of the dressings. This measure is, however, frequently but partially effectual, as some determined characters will destroy the granulations by repeated blows over the ulcer, and by introducing pins through the bandage. It is occasionally necessary to enclose the leg in a wooden box. There is perhaps no disability which a recruit can feign, more likely to lead to his discharge than a large ulcer; and, unlike any other defect, he has more chance of effecting his purpose by exciting the disease, than if it had supervened spontaneously. Cases such as the following occasionally occur, and I do not well know how they can be obviated. An individual enlists in the country, and is there intermediately approved. By the time he arrives at a district dépôt, he has a large ulcer over the shin bone of one of the legs, pro-

duced by one of the means already mentioned. He is sent to hospital until the ulcer be cured. Should the cicatrix be large or adhering, he is considered an ineligible recruit, and recommended to be examined by a medical board, by whom he is sometimes rejected; not so much on account of the cicatrix, but because they deem him a schemer, and that he can at any time in a few hours disable himself for duty by re-exciting a troublesome ulcer on the site of the old scar.

Fractures.—Recruits who wish to be rejected at either intermediate or final inspections, and sometimes soldiers who are anxious to be discharged, affect impaired health or disability in consequence of fractures of the skull, or of some of the cylindrical bones. Frequently there is no evidence of fracture having occurred but the man's own testimony. When fracture of the cranium is feigned, the man asserts that he becomes deranged when he tastes liquor; and when of the bones of the inferior extremities, he complains of occasional pain in the part, and that he is unable to endure fatigue, and so on. The unblushing impudence with which impostors sometimes pretend to suffer under a feigned defect is almost beyond what could be imagined, although perhaps not more surprising than the occasional credulity of professional people. In the following case, both of these qualities are strikingly manifested. William Dempsey was approved by Dr. John Brown, at this depôt, for the 83d regiment, in the month of February 1813, and transferred in the usual way to Dunburry barracks, the quarters of the depôt of the regiment. He was there "surgically rejected," in consequence, as stated, of having a *plate* inserted in his skull. According to Dempsey's own account of himself, he had served in the *Phoenix* frigate, and was shipwrecked in her, when he met with an accident by which his skull was fractured, a circumstance that rendered the insertion of a *plate* necessary.

In consequence of this fictitious defect he was discharged, and immediately after a letter was addressed to the commander of the forces in Ireland by the adjutant-general, signifying his Royal Highness's "command, that the expenses incurred by the enlistment of William Dempsy must be paid by Dr. Brown, who does not appear to have used due attention in the examination of this man;" observing, at the same time, "that Surgeon Brown's experience might have taught him, that in general no dependence is to be placed on the assertion of those who offer themselves as recruits in the *Dublin district*; and that, in order to guard against the like imposition being again practised, and to avert the consequence resulting from it, he will no doubt see the necessity of trusting only to his own judgment, and of not depending upon what any recruit may himself advance."

The same man, under the name of Christopher Dempsy, presented himself again at the depôt, as a recruit of the 12th regiment, on the 18th May 1813. He was instantly recognized, and Dr. Brown, after examining him carefully, was of opinion that his skull had never been fractured. He was next examined by the army medical board, whose certificate, attested by the signatures of Drs. Harvey and Renny, stated, that "Dempsy is fit for service, as every part of the skull appears at present to be perfectly firm and sound." Eventually he was transferred to the army depôt in the Isle of Wight, there to remain until an opportunity offered of forwarding him to join the 12th regiment in the Mauritius.

Malformation.—Of all defects that disqualify for military service, personal deformity would be supposed to be the most unlikely to be feigned, for certainly none promises to be more easily detected. It is however not unfrequently simulated by recruits; and in some instances their measures have been completely successful. Edward Brady, a recruit

for the 58th regiment, was approved by Mr. M'Leod, surgeon to the 42d regiment, and acting district surgeon in Dublin, in August 1819. He was forwarded to the army depôt, Isle of Wight, where he feigned malformation so effectually, that a board of medical officers, which was assembled on the 4th September, to report on his case, found that he was unfit for the service, on account of "deformity of the spine and chest—strong inclination of the body to the right side—defective motion of the right arm and leg—pain on pressure upon the spinous processes of several of the dorsal vertebræ." In compliance with the finding of the board he was discharged. He returned to Dublin, where he was minutely examined on the 22d September by Dr. Peile, deputy-inspector of hospitals, Dr. Thomas Brown, and the late Mr. Todd, professor of anatomy, who found his spine and chest well formed, no inclination of the body to the right side, or defect in the power of motion of the right arm and leg, and no pain on pressure upon the spinous processes of the dorsal vertebræ. But, previously to the latter examination, the end for which deformity had been simulated was obtained. In January 1822, Brady revisited this depôt as a recruit for the 89th regiment, he having been inspected and approved at Newry, by staff-surgeon R. J. Browne. How many bounties he may have received, it is impossible to say. An acquaintance with the success of some simulators of disabilities tends to sharpen suspicion, and to show the necessity of great vigilance on the part of medical officers, to counteract the unwearied stratagems with which they will sometimes attempt to defraud Government, and eventually bring blame upon individuals. The above is by no means a solitary instance of success, in this variety of imposition. Timothy Darby, a recruit for the 59th regiment, was approved by Dr. Thomas Brown during the autumn of 1821, and transferred to the depôt of the corps in the Isle

of Wight. The nature of the farce he acted there may be inferred from the subjoined copy of a report made on his case by a board of medical officers.

“The board have minutely examined recruit Timothy Darby, 59th regiment, and find a curvature of the upper part of the spine, with deformity of the chest and shoulders, the left shoulder nearly two inches higher than the right, and the body slightly bent forward, with the head inclining to the left side. He has been in hospital upwards of two months under observation and treatment, large caustic issues have been made on each side of the spine, and the cough and pain he complained of on admission are removed. The board are of opinion that the deformity is incurable, and recommend his removal from the service.”

This report is dated 10th December, and Darby was discharged on the 13th of the same month, “in consequence” (as his discharge states) “of deformity in the spine and chest.”

Dr. Brown having been furnished with a copy of the above report, very naturally inferred that there must be some fraud in the business, as it was morally impossible that he would have approved of so deformed an object as appeared to be described by the board. Darby was intercepted on his return home through Dublin; and on the 21st January, 1822, was inspected by three eminent surgeons, Messrs. Colles, Todd, and Cusack, an extract from whose report I shall subjoin.

“We have this day minutely inspected Timothy Darby, and we are of opinion that he does not labour under any disease or deformity of the spine or chest; on the contrary, he appears to be remarkably well formed.”

On the 2d of November 1825, Darby made his appearance at this dépôt as a recruit for the 87th regiment, but, presuming that he would be rejected on account of the

cicatrices of two large issues on his back, and determined to make as much as he could of the service, he refused to accept of a smaller sum, as enlistment money, from the recruiting-sergeant, than five shillings. As I happened to be acquainted with part of his history the scheme failed. I returned him fit for the service; he was soon after transferred to the depôt of the 87th regiment, and finally approved. It may be observed that this man is formed with unusual symmetry. In cases where deformity is supposed to be simulated, the man should be laid on his back, and examined.

Maiming.—The conscripts in France used to cripple themselves by twisting the great toe into a position that would disable them from marching. Soldiers sometimes maim themselves for the purpose of being discharged; and in some instances this practice has become epidemic in a corps. While the — regiment was serving at the Cape of Good Hope, a great number of the men maimed themselves, apparently for this purpose: in the course of six weeks, nine disabled one or other of their extremities. Maiming sometimes occurs when regiments are ordered on foreign service. During the late war, of thirteen men who volunteered from one of the Cork militia regiments, into the — regiment, five disabled themselves when the corps was ordered on service to the Peninsula. Very lately, when the — regiment was at Cork, and about to embark for the West Indies, four of the men got the first joint of the thumb of the right hand amputated.

In cases of accident, medical officers are sometimes requested to give their opinion in regard to the means by which a disability has been occasioned. This is often a highly important duty. If a man receives an accident so serious as to disable him, while on duty, he has a claim for a pension; but if he intentionally inflicts an injury on himself, he deserves to be punished. A careful examination of the

wound, aided by collateral circumstances, will for the most part lead to a satisfactory conclusion. Very few individuals who mutilate themselves, consider beforehand in what manner they are to answer the questions, how—when—where did the accident occur? and to explain all the auxiliary circumstances. A man belonging to the —— regiment was one morning dividing the meat for the different messes of the company, when he cut off the thumb of the left hand. The mutilation was stated to be the effect of accident, but when the amputated portion was examined, a deep incision was found in it, satisfactorily proving that he must have designed to inflict the injury, as complete excision did not follow the first stroke of the cleaver. During the insurrection of the Kandyans, in 1818, a private belonging to the —— regiment was standing sentry at a little distance from a post occupied by British troops, and while on this duty was occasionally fired at by the enemy from the surrounding jungle. This man was found severely wounded, having nearly the whole calf of the left leg blown away. He attributed the wound to a shot from the jungle, but the nature of the injury, and the recent explosion of his own musket, told a different tale. This fellow recovered, and unfortunately received a pension of sixpence a day, on account of his wound, the medical officer who recommended him to be discharged, not being aware of the mode by which the injury had been occasioned.

Perhaps I may be permitted here to observe, that regimental medical officers cannot be too careful, in filling up the discharges of men, to specify particularly the causes of disability for further service. When soldiers are recommended for pensions, it would be well if the surgeon were in his own hand writing, on the back of the discharge, to give a brief account of the origin and present state of the man's defect; and when a wound or accident has been the

cause of the disability, it ought to be clearly stated how such accident happened, and whether the man was at the time on duty.

Soldiers who mutilate themselves have commonly a double object in view,—to obtain their discharge and a pension ; hence they in general pretend that the disability was contracted on service. Not long since a private in this depôt by some means or other had his left thumb excised, except only a small portion of the skin on the palmar side of the hand. He stated that the accident was occasioned by his falling upon broken glass ; and to corroborate his assertion, he had taken care to dispose the fragments of a quart bottle at the bottom of the barrack stair, where the accident was said to have happened. He was not however prepared to explain why, if he fell forward on a broken bottle, the skin on the palm of the hand was not divided. A court martial awarded him three hundred lashes, which he received. A man belonging to the 7th dragoon guards vociferated one day in the stable, that his horse had bitten off his left thumb while he was feeding him, and certainly the mutilated portion of the hand was found in the manger. He had however completely forgotten to clean his sword before giving the alarm, for upon examination traces of recently fluid blood were found on it. The means by which men are sometimes convicted of intentionally maiming themselves are singular, and could hardly be anticipated. In 1812, while the 2d battalion 3d regiment was quartered in Dublin, a private of that corps came into an apothecary's shop near to the royal barracks, one evening after sunset, accompanied by a crowd of people, having had two of the fingers of his left hand recently amputated. His fingers were dressed, and he was then conveyed to the general hospital, where he stated, that when returning from furlough, he had in the immediate vicinity of the city been attacked by a number of

people, and that during the affray his hand was mutilated. Persons were instantly despatched with lanterns to inspect the reported scene of the assault. There they found a flat stone with the amputated fingers upon it, and at a little distance a small hatchet. The soldier was arraigned before a court martial for maiming himself, and convicted of the crime laid to his charge, on the evidence of the mutilated hand and ablated fingers, the stone upon which the fingers were found, and the hatchet, the edge of which exactly fitted an indentation in the stone. He received his punishment before the garrison of Dublin, and was retained in the regiment as a pioneer.

In some instances, however, it is not easy to convict a man who maims himself, even in cases where there can be little doubt that he inflicted the injury voluntarily, or was aiding and abetting on the occasion. On the 3d of last November, about 10 o'clock A. M., a man belonging to the 4th dragoons, who was on furlough, and had been visiting his relations at Kells, applied for admission into the general hospital of this garrison, in consequence of having the ring and little finger of his right hand amputated; a circumstance which he said was occasioned by the falling of a log of wood upon his hand. The blood was flowing per saltum from the divided arteries when he was admitted into hospital, and hence it was inferred, that the injury had been inflicted only a few minutes previously. He stated that the fingers had been ablated at eight o'clock that morning while he was assisting to remove some wood from a cart at the Custom House Quay, a distance of nearly two miles from the hospital, and that the amputated portions of fingers had been thrown into the Liffey by his brother. About a fortnight after admission, Mr. Crampton, surgeon general, and Mr. Stringer, surgeon to the forces, were directed by Dr. Renny to give him an account of the injury this man had received, and they made the following

Report: "With reference to the case of Thomas O'Brien, 4th light dragoons, who has lost the two outermost fingers of the right hand at the second joint of each, we are of opinion that the fingers have been cut off by a sharp instrument, as the skin is divided without laceration or bruising, and the bones are cut without splintering."

The fingers are both divided in one straight line, leaving a small portion of the second phalanx of the little finger, and a still smaller one of the ring finger, attached to the hand, so that it appears as if they had been excised by means of a sharp instrument, probably a chisel and mallet; and it may be presumed that he was assisted by a friend. Soldiers who intentionally maim themselves in the hand, commonly amputate the thumb or index finger. The loss of the ring and little finger will not disable O'Brien from working at his trade, which is that of a stocking weaver, and I have no doubt that he had this fact in contemplation when the fingers were amputated. He was met in one of the streets of Dublin by an officer a little after nine o'clock of the day he was admitted into hospital, without evincing any appearance of having received an accident. Whether a court martial would convict him on the evidence of the collateral circumstances that may be adduced, remains to be proved, and is indeed doubtful. Should he be tried and convicted, he may be made useful by holding him up as a warning to prevent similar delinquencies. To discharge him would be to promote his views, and to encourage the practice of maiming. Although he is disqualified for performing the functions of a dragoon, he may be usefully employed in some of the laborious duties of a corps of cavalry. He has been ordered to join the depôt of the 4th dragoons at Maidstone.

I am greatly disposed to doubt the policy of granting furloughs to young soldiers, having seen bad consequences result from indulgences of this kind. When a young

man, who has perhaps been only a few months or a year in the army, revisits his native village, he is received by his relations with unusual marks of attention. Not having acquired the confirmed habits of a soldier, he becomes more attached to home and friends than ever, and frequently rejoins his corps with great regret. Under the influence of chagrin and vexation, some individuals begin to malingering almost immediately after joining, or when drill is recommenced, and occasionally they maim themselves or desert before the period of furlough terminates.

Lameness.—This defect is frequently feigned by recruits when they wish to be rejected. It is also sometimes simulated by men who have been some time in the army, in the hope of thereby obtaining their discharge. The lameness is commonly ascribed to a fall or bruise, real or pretended. Some individuals will persist for years in complaining of partial loss of power, and consequent lameness of one of the inferior extremities, and assert their total inability to perform any duty. In doubtful cases the medical officer should ask himself the following questions. Is it probable that the cause to which the lameness is ascribed could occasion genuine disease? Is the assumed disability a consequence of the alleged cause? By carefully investigating these points, he will probably arrive at as definitive a conclusion as the nature of the subject will warrant. Simulators of lameness, like those who feign other defects, are liable to give incongruous accounts of their feelings: for instance, the uneasiness occasioned by a blister, the degree of which is in general easily estimated, they will assert is excruciating, and that the application has excited a variety of tormenting sensations. Where any doubt exists, the patient ought to be carefully watched, and for this purpose he should be accommodated in a ward, either by himself or along with other men, where he may be observed without being

aware that he is under surveillance. Where it is presumed that the disability is purely feigned, active exercise may be prescribed, and the recommendation rigidly enforced by the commanding officer. A remedial measure of six or eight hours knapsack drill daily, is what few simulators of lameness can long endure*.

There is perhaps no specific disability which is more frequently feigned than lameness, from partial loss of power of the inferior extremities, pain in the loins, and an inability to stand upright. The greatest care is constantly required to avoid being led into error by the illusory statements of patients who complain of ailments of this kind. John Hogan, 34th regiment, was admitted into the general hospital of this garrison in the month of May 1827, under the head of "chronic rheumatism," and has been in it ever since. He complains of uneasiness of the loins, feebleness of the inferior extremities, and inability to stand upright. On the 31st December he was examined by a board of medical officers. His countenance indicates good health,

* The use of drill may be of much advantage in some cases of malingering; but, like every other powerful agent, it requires to be judiciously managed. To render drill effectual, it is often necessary to adapt the nature of the exercise to the character and disposition of a schemer. A private belonging to the 3d regiment of light dragoons, upon rejoining the corps, after having been absent on furlough, asserted that he had nearly lost the sense of hearing, a statement which obtained no credit. He was sent to drill under the superintendence of the sergeant-major, but at the end of about four months no improvement was perceptible. In consequence of his pretending that he could not hear the word of command, it was difficult to make him do any thing which did not suit his own views. Eventually it was suggested by the surgeon of the regiment, that he should be drilled with the youngest recruits, or awkward squad, and made to perform the requisite evolutions by *imitation*. This measure was rapidly successful, for during the second day he had been at this kind of drill he suddenly recovered his sense of hearing, and has retained it ever since.

and his digestive and other functions are natural. When inspected by the board, he lay on his breast for the purpose of having his spine examined, without making any complaint: he however asserted that he was unable to stand upright; and when one of the members of the board placed his hand on his chest, with the view of assisting him to gain an erect position, he voluntarily resisted every attempt of that kind with considerable force, apparently forgetting that his spine was quite straight when lying on the table. His inferior extremities are not materially if at all extenuated, although he has been using a crutch and a stick since admission. The board found him not unfit for the service, and therefore did not recommend his discharge. In cases where there is no evidence of disease but testimony, and satisfactory proof of fraud in the detail of symptoms, it may be very generally inferred that the assumed disability is feigned. Hogan is certainly not unfit for the army from physical causes, although he is very much so on moral grounds; but on no account should his views be promoted by discharging him from the service. This is an instance of a numerous class of persons which infests general hospitals, misleading and corrupting young soldiers, not only by instruction and precept, but by the powerful influence of example.

A disposition to malingering and feign disease is one of the most disqualifying disabilities with which a soldier can be afflicted. An old soldier who attempts to simulate a defect, and persists in his plan of imposition for a little time, is frequently lost to the service, notwithstanding every means that may be tried to bring him to a proper sense of his duty. Recruits and young soldiers are generally reclaimable. Impostors, who prosecute their schemes

with art, who possess great fortitude and an inflexible resolution, must sometimes succeed in obtaining their discharge, either by making fraud appear to be more probable than truth, or perhaps more frequently by exhausting the patience of medical and commanding officers. It is only after some experience that a medical officer is aware of the difficulties he has to encounter, in his endeavours to reform thorough-paced malingerers. Let him be ever so assiduous, and adopt the most judicious measures for the recovery of simulators, who suffer under some real although only trifling cause of inability, he will not seldom find his measures rendered nugatory by their unwillingness to be restored to the ranks, and the pains they take to retard convalescence; he will also find himself much perplexed how he ought to act for the purpose of rectifying the mental aberration or moral obliquity of schemers, whose disabilities are merely pretended. Impostors often display a spirit of invention, and an art in concealing fraud, which could not have been anticipated. The mind, by becoming concentrated on one object, appears to acquire new powers; so that persons with naturally weak intellects, have evinced a tact and dexterity in the prosecution of a scheme, far beyond what their previous conduct would have warranted us in assuming. In coming to a conclusion, with regard to the measures which should be adopted with detected simulators, commanding officers have frequently only the choice of two evils;—to recommend the discharge of a man, or to retain him in the service with scarcely any prospect of his being a useful soldier. When an impostor is discharged, he almost invariably throws off the mask abruptly, and boasts of the success of his artifice, thereby giving a bad example to his comrades, and one which may be influential in exciting them to imitation. To retain a malingerer in the service is likewise liable to in-

jure the morals and discipline of a corps. Many a simulator will hold out, not only for several months, but for a number of years, probably passing his time chiefly in hospital; and during all this period the contagion of bad example is in operation, by the influence of which, individuals, who would have continued to be good soldiers, have been seduced from the strict path of duty, and induced to feign disabilities, and to persist in schemes of fraud with the most inflexible obstinacy.

APPENDIX.

THE subjoined ANNUAL RETURNS will show the actual Causes of Rejection for the periods specified, and the relative proportion of each Class of Defects to the number of Recruits inspected.

No. I.

RETURN OF RECRUITS inspected at the Recruiting Depôt, Dublin (Centre Recruiting District), from 25th December 1824 to 24th December 1825.

APPROVED	4,839
REJECTED	1,390

TOTAL INSPECTED 6,229

CAUSES OF REJECTION.

Ophthalmia tarsi	3
Pulmonic diseases	2
Epilepsy	3
Weakness of intellect.....	7
Unsound health, emaciation, sottish intemperance, worn-out, &c.	158
Traces of scrofula	68
Syphilis primitiva	26
consecutiva	3
Gonorrhœa	3
Chronic affections of the skin	5
Tinea capitis, or traces of this affection	15

Muscular tenuity	30
Nebulous obscurity of the cornea.....	3
Opaque specks of the cornea	30
Cataract	7
Closed pupil	7
Amaurosis	2
Strabismus	2
Puriform discharge from the ears.....	10
Defect in the function of hearing.....	3
Loss of many teeth, diseased gums, &c.	22
Greatly enlarged tonsils	1
Narrow chest	10
Depressed sternum	4
Deformed spine	55
Defective condition of the superior extremities, from malformation, contractions, mutilations, ganglions, &c.	90
Deformed pelvis	7
Hernia, Inguinal, { both sides	1
{ right side	14
{ left side	17
Ventral	44
Umbilical	6
Laxity or enlargement of both rings	19
of the right	6
of the left.....	56
Varicose condition of the veins of the left spermatic process...	46
Right spermatic process unusually large.....	3
Left testicle strangulated in the ring	1
Hydrocele	8
An unusually large state of both testicles	3
of the right	3
of the left.....	10
Defective condition of the inferior extremities, from malformation, nodes, exostosis, mutilations, misplaced toes, ganglions, &c.	155
Varicose veins of both legs.....	35
of the left leg.....	71
of the right.....	64
Ulcers, cicatrices of ulcers, wounds, &c.....	138
Old fractures	18
Tumours	7

Flatness of the soles of the feet	34
Punished	36
Men who have been in the army, but who refused to show their discharges	3
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Total	1,390

ABSTRACT.

Recruits.	Inspected.	Approved.	Rejected.	Per Cent. Rejected.
Town Recruits	3,315	2,226	1,089	32.8
Country Recruits..	2,914	2,613	301	10.3
Total	6,229	4,839	1,390	22.3

No. II.

RETURN OF RECRUITS inspected at the Recruiting Depôt,
Dublin, from the 25th of December 1825 to the 24th of De-
cember 1826.

APPROVED	3,243
REJECTED	775

TOTAL INSPECTED 4,018

CAUSES OF REJECTION.

Unsound health, worn out, sottish intemperance	71
Weak intellect	3
Traces of scrofula	52
Muscular tenuity	27
Chronic cuticular affections	7
Traces of tinea capitis	4
Ophthalmia tarsi	10
Obscurity of the cornea	8
Specks on the cornea	39
Closed pupil	1
Amaurosis	1
Cataract	2
Puriform discharge from the ears	5
Defect of the sense of hearing	2
Loss of many teeth	12
Impediment of speech	5
Excessively large tonsils	1
Narrow chest, sternum in some cases protruded	6
Thinness, and defective amplitude of the chest	2
Defective condition of the superior extremities, on account of old fractures, contractions, mutilations, extenuation, &c.....	45
Projecting scapulæ	2
Deformed spine	19
Deformed pelvis	3
Hernia, Inguinal, both sides	1
right	6
left	7
Ventral	3

Hernia, Umbilical	1
Laxity of both rings	7
right ring	6
left ring	17
Spermatic cord right side thickened.....	3
Varicose veins left spermatic cord	18
Right testicle strangulated in the ring	1
Both testicles unusually large	1
Right ditto	1
Left ditto	3
Hydrocele, both testes	4
right testicle	5
left ditto	5
Gonorrhœa	3
Syphilis primitiva	17
consecutiva	2
Defective condition of the inferior extremities, on account of old fractures, malformation, extenuation, nodes, misplaced toes, supernumerary toes, contractions, ganglions, &c.....	86
Varicose veins, both legs	13
of the right leg.....	47
of the left	36
Ulcers, wounds, and old cicatrices	66
Traces of issues, chiefly on the back of the neck	16
Traces of fracture of one or both of the clavicles.....	17
Flatness of the soles of the feet	16
Traces of corporal punishment, on the back	37
on the breech	2
An old soldier refusing to show his discharge	1
Total	775

ABSTRACT.

Recruits.	Inspected.	Approved.	Rejected.	Per Cent. Rejected.
Town Recruits	2,347	1,675	672	28.6
Country Recruits..	1,671	1,568	103	6.1
Total	4,018	3,243	775	19.2

No. III.

RETURN OF RECRUITS inspected at the Recruiting Depot,
Dublin, from the 25th of December 1826 to the 24th of December 1827.

APPROVED.....	2,006
REJECTED	582
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TOTAL INSPECTED.....	2,588

CAUSES OF REJECTION.

Unsound health, worn out, &c.	48
Discharged from the service on account of visceral disease.....	4
Weak intellect	5
Traces of scrofula	28
Muscular tenuity	28
Chronic cutaneous affections... ..	10
Traces of tinea capitis	7
Wen on the head	1
Ophthalmia tarsi	7
Obscurity of the cornea	11
Falling down of the eyelids	1
Specks on the cornea	26
Fistula lachrymalis	1
Cataract	12
Strabismus	3
Puriform discharge from the ears	2
Deafness	1
Loss of many teeth.....	8
Impediment of speech	2
Transverse cicatrix on the front of the neck, supposed to be the result of an attempt to commit suicide	2
Excessively large tonsils	1
Want of due capacity of the chest	4
Defective condition of the superior extremities on account of old fractures, contractions, mutilations, extenuation, deformity, ganglions, &c. &c.....	49
Fracture of one or both of the clavicles.....	5
Projecting scapulæ	1

Deformed spine	7
Hernia Inguinal { right side	7
left side.....	6
Ventral	3
Laxity of the ring { both sides... ..	10
of the external { right side	7
oblique muscles { left side.....	5
Varicose veins left spermatic chord	10
Left testicle strangulated in the ring	1
Both testes unusually large	1
Left testicle enlarged	3
Gonorrhœa	1
Hydrocele, both testes	2
right	4
left	5
Syphilis primitiva	5
consecutiva	3
Defective condition of the inferior extremities from old fractures, malformation, extenuation, enlargement, disproportioned length, bunions, ganglions, &c.	65
Varicose veins of both legs	7
the right	28
the left	39
Ulcers, wounds, or cicatrices of ditto.	48
Traces of issues, chiefly on the back of the neck	9
Flatness of the soles of the feet	16
Traces of corporal punishment on the back	23
Mark of the letter D under the left arm pit	1
Total.....	582

ABSTRACT.

	Inspected.	Approved.	Rejected.	Per Cent..Rejected.
Town Recruits	1,778	1,253	525	29.6
Country Recruits..	810	753	57	7.09
Total	2,588	2,006	582	22.5

No. IV.

NUMERICAL RETURN OF THE RECRUITS examined in the Centre Recruiting District (Dublin), from the 25th of September 1804, to the 24th of December 1827, divided into Annual Periods, together with the Number approved, as also the Number found unfit for Military Service, and the Proportion per cent. of Rejections to the whole Number inspected.

Years.	Examined.	Approved.	Unfit.	Proportion per cent. unfit.
1804.....	486	383	103	21.2
1805.....	1501	1233	268	17.8
1806.....	1781	1415	366	20.8
1807.....	1776	1400	376	21.1
1808.....	1114	901	204	18.3
1809.....	1423	1103	320	22.4
1810.....	1523	1224	299	19.6
1811.....	1793	1480	313	17.4
1812.....	3320	2624	596	17.9
1813.....	2984	2531	453	15.1
1814.....	1535	1303	232	15.7
1815.....	3413	2759	654	19.4
1816.....	2740	2027	713	26.0
1817.....	1426	989	437	30.6
1818.....	1801	1090	711	39.5
1819.....	2783	2029	754	27.4
1820.....	1886	1296	590	31.2
1821.....	1986	1386	600	30.09
1822.....	3233	2274	959	29.6
1823.....	3100	2129	971	31.5
1824.....	3558	2496	1062	29.09
1825.....	6229	4839	1390	22.3
1826.....	4019	3243	775	19.2
1827.....	2588	2006	582	22.5

ABSTRACT.

Period from	Examined.	Approved.	Unfit.	Proportion Per Cent. Unfit.
25th Sept. 1804 to 24th Dec. 1827.	57,894	44,166	13,728	23.7

The proportion of conscripts rejected in France, on account of disabilities, appears to be larger than that of volunteers in this country. During the eight years, comprised in the period between the years 1816 and 1823 inclusive, 40,576 names were enrolled, according to their ages, in the department of the Seine, to furnish the contingent for the conscription, amounting to 5,825. To supply this number 11,735 men were drawn and submitted to the inspection of a recruiting board, who rejected 5,905 under the following heads:—

Low stature	1,483	
Deformity	1,021	} 4,422
Infirmities or diseases	3,401	

Total 5,905

If the number rejected on account of low stature be deducted from the whole number drawn, we shall find the amount to be 10,252. From this number 4,422 were rejected in consequence of what is called medical defects (deformity or diseases), being at the rate of 43.1 per cent. The mean height of the conscripts approved was 1 metre, 683 mille metres, or about five feet six inches and a half English.

The conscripts are generally found to be tall, healthy, and vigorous, in an inverse ratio to the fatigue they endure during youth, and the privations to which they are exposed. Of the conscripts drawn in the rich province of Blesle, only 26 per cent. were rejected; while in the poor canton of Auzon 58 per cent. were found unfit, and this may be taken as a general example.—*Annales de Sciences Naturelles*, June 1827.

No. V.

I have stated, page 55, that when country recruits are deemed ineligible for the service by the district staff surgeon, they are referred to the ultimate decision of a medical board. It may be useful to young medical officers to know how that reference is conducted in the centre recruiting district. A return of the ineligible recruits, agreeably to the subjoined form, is transmitted to the deputy adjutant general, who communicates with Dr. Renny, director general of hospitals, in regard to the assembling of a medical board.

CENTRE DISTRICT.

RETURN OF RECRUITS arrived at Dublin for inspection, and considered ineligible by the district staff-surgeon.

Regiments.	Name.	Age.	Size.		Date of attestation.	Enlisted.		By whom first medically approved.	Causes of ineligibility.
			Feet.	Inches.		By whom.	Where.		

(Signed) _____ Inspecting Field Officer.
 _____ District Staff Surgeon.

Medical boards, for this duty, commonly consist of a deputy inspector of hospitals and two regimental surgeons. Each board is informed, that, "*in the event of the recruit being pronounced unfit to be retained, it is desirable the board should express its opinion as to the probability of his being enabled to impose on the public by re-entering the service.*" And it has hitherto been the usage, when a recruit is cer-

ified "unfit," to add "*that he is not likely to re-enter the service.*" A board seldom finds much difficulty in coming to a conclusion in regard to whether the man under examination ought or ought not to have been approved in the first instance; but with respect to "the probability of his being again enabled to impose on the public," a complex question is involved. In many instances the subject of discussion is not so much the nature of the defect which makes a man ineligible, as whether it is probable the medical person, before whom he may be brought for examination, will be sufficiently acquainted with the duty of examining recruits to discover the cause of his ineligibility; and possessed of adequate experience of the duties of soldiers, to enable him to duly estimate the degree of his infirmity. On account of the difficulty of determining this point, I believe a number of recruits have been returned fit by boards who would have been certified unfit, had no contingent clause in the certificate been required. The circumstance that a man is actually in the service is much stronger evidence of the probability of his being again approved, if he presents himself for examination, than the hypothetical opinion of a medical board, "*that he is not likely to re-enter the service.*" One instance came to my knowledge, where the members of a medical board allowed their fears in this respect to mislead their judgment; they declined to find a recruit unfit, although he had confessedly hydrocele; thus dispensing with an important regulation of the service (vide page 5, rule 1st). They exceeded their power, and recommended the surgeon of the corps to which the man belonged to perform the operation for hydrocele; but as he peremptorily declined to perform any doubtful operation upon a recruit who had not been finally approved, the proceedings of the board were revised; he was found unfit and discharged. It will appear, therefore, that the members of a board rarely find a recruit unfit on account of a blemish, which is not likely to affect his efficiency in a decided manner, their opinion being generally final; whereas a district surgeon, whose decision is only intermediate, finds it necessary to consider recruits ineligible for comparatively trivial defects, and sometimes for technical causes of disability. In regard to country recruits, I consider the responsibility much too great to be vested in one individual. I was lately informed by a staff-surgeon, that he had thought it his duty to recommend the discharge of 18 out of 31 recruits of this class; now I think it very probable, that had these men been brought before a board for ex-

amination, the rejected number would have been considerably reduced, and a certain amount saved to Government. Except in one case, which was that of a recruit who had been approved at Liverpool and subsequently rejected in Dublin, I never knew the members of a board called upon to defend their opinion, respecting the unfitness of a recruit; indeed were this circumstance to happen often, it would occasion much inconvenience to individuals, as well as to the service in general, as the members might be far removed from each other and the place where they had originally assembled; besides, unless the man in question were brought again before them, it is difficult to conceive how they could give satisfactory reasons for the opinion to which they had subscribed.

I have subjoined a numerical return of the country recruits, which have been found ineligible at this depôt, during the years 1825, 1826, and 1827, with their ultimate disposal.

Years.	Ineligible.	Discharged by I. F. O.	Unfit by Boards.	Total unfit.	Fit by board.
1825.....	585	20	281	301	284
1826.....	261	26	77	103	158
1827.....	128	12	45	57	71
Total.....	974	58	403	461	513

Proportion of ineligible recruits, discharged as unfit for the service, 47.3 per cent.

Recruits whose causes of ineligibility are very evident, as great deformity or contraction of the larger joints, are commonly not submitted to the inspection of a board; they are discharged by the inspecting field officer, and the expense incurred falls upon the subdivisional officer or the recruiting party. The amount of expense incurred on account of men, who are found unfit by a medical board, is charged to Government, as the disability is supposed to be not sufficiently obvious for a military officer to perceive.

Recruits, that are found fit by boards, join their respective regiments or depôts without delay. A certificate of the approval of

each man, signed by the members of the board, is transmitted to the regiment or dépôt to which he belongs. The staff-surgeon does not sign the attestation.

With a view to enable the director general to communicate with the medical gentlemen, who have approved of disqualified recruits, the staff-surgeon is instructed to forward to his office monthly, a return, detailing the name of each recruit rejected by a medical board, the date of intermediate approval, the date and cause of rejection, with the name and residence of the medical officer, or country practitioner, who had passed him in the first instance.

In Ireland no militia surgeon, or private practitioner, was, until lately, authorized to examine recruits, as will appear by the following documents :—

Adjutant General's Office, Dublin, 9th Aug. 1817.

MEMORANDUM.

Recruits raised in this country, for regiments of the line, are not in future to be inspected by the medical officers of the disembodied militia, as these officers cannot be supposed to be in possession of the orders and regulations published from time to time, in regard to the examination of recruits.

(Signed) AYLMER, A. G.

Head Quarters, Dublin, 27th Dec. 1819.

GENERAL ORDER.

By the regulations of the army, the recruits raised by the recruiting parties are to be inspected and approved by military medical officers, who, by the instructions of his Royal Highness the Commander-in-chief, are held responsible for their being in every respect fit for his Majesty's service. It follows, that no officer, who is not employed in his Majesty's medical service, is authorized to make such inspections, as he cannot be made responsible for a breach of duty. And if any recruiting officer shall attempt to avail himself of the services of a private medical practitioner for the inspection of recruits, and if any such recruits shall thereafter be rejected, the whole of the expense attending their enlistment will be charged against such superintending officer.

By order of the Commander of the forces.

(Signed) AYLMER, A. G.

Adjutant General's Office, Dublin, 8th March 1823.

CIRCULAR.—MEMORANDUM.

Upon these occasions (namely, when a recruit cannot be conveniently seen by a subdivisional officer) the sergeant or non-commissioned officer in charge of the party, before taking the recruit to be attested, will apply to any military surgeon, who may happen to be on the spot, for his examination of the recruit; but in default of a military medical officer being at hand, a *private practitioner* must then be resorted to for that purpose.

(Signed) E. J. O'BRIEN, Colonel, A. A. G.

The memorandum, bearing date 9th August 1817, is virtually rescinded by the concluding paragraph of a circular (No. 505) bearing date, War-office, 24th January 1824, addressed to "Colonels of Regiments of Militia of Ireland," by the secretary at war, which is as follows:—

"I am also to add, that in future the surgeon of ——— regiment will be considered liable to be called upon to examine recruits of the line, at the station where the depôt of the ——— militia is situated, without any additional remuneration for this duty."

No. VI.

OPHTHALMIA.

IN consequence of the representations made of the prevalence of ophthalmia in several regiments in this part of the United Kingdom, and of the strong grounds which exist for suspecting, that, in many instances, the disease has been desiguedly brought on, and the cure of it resisted, for the obvious purpose of producing loss of sight, in the hope of obtaining thereby a high rate of pension, the following regulations on this important subject are to be strictly attended to by the army on this establishment.

1st.

Whenever ophthalmia appears in any regiment, the patients so diseased are to be immediately separated from the other soldiers, and accommodated in wards or rooms well ventilated, and properly darkened; and in all such cases, a special report is to be transmitted by the surgeon to the director general of hospitals, and to the district staff medical officer, who is required, on receiving such report, to visit said regiment without delay, and to remain at the quarter so long as his medical advice and personal assistance shall be required.

2d.

In such situations commanding officers will order frequent inspections of the whole regiment to be made by the surgeon, or assistant surgeon, for the purpose of detecting the early appearance of this disease, and of stopping its further progress; and whenever the origin of the complaint can be traced as depending upon contagion, a special report is to be made thereon to the director general of hospitals.

3d.

If, in the progress of the cure, any patient or patients show a tardiness or disinclination to obey the directions given to them by the medical officer, or if, from the bad character or irregular conduct of any patient, and the violence and long continuance of high inflammation of the eyes, after the appropriate remedies have been employed, there be reason to suspect that improper practices had been resorted to, every such patient or patients are to be separated from the others, and put under the care of a vigilant and intelligent orderly, or nurse, who can be thoroughly depended upon, to detect imposition, and to give a true report of future proceedings to the surgeon; a measure, which, if strictly enforced by the authority

of the commanding officer, cannot fail of being attended with the very best effects.

4th.

Officers commanding regiments are ordered to explain in the fullest manner to patients who have fallen under such suspicion, that not only the *pension* of *Chelsea* hospital will be withheld from every soldier labouring under ophthalmia, against whom satisfactory evidence shall be produced of his having resisted the measures proposed for his relief, but that adequate punishment will be inflicted by the sentence of a court martial on those who shall be detected in applying irritating substances to the eyes in order to produce the disease.

5th.

It is further ordered, that in future, previous to granting a recommendatory discharge to any soldier who has become totally or partially blind, commanding officers shall satisfy themselves by strict inquiry of the medical officers and attendants, that no suspicion exists of the disease having been produced by improper practices, or of the cure having been designedly prevented; and an ample certificate to that effect, signed by the commanding officer and the regimental surgeon, must be inserted in the discharge.

6th.

In all doubtful cases, commanding officers will assemble a court of inquiry, for the purpose of investigating them; and whenever a recommendatory discharge is withheld from a soldier become unfit for service from ophthalmia, a *special report* of the circumstance must be made, for the information of the lieutenant general commanding.

7th.

Officers commanding regiments are to transmit along with every recommendatory discharge for ophthalmia a certificate, signed by the attendant staff or regimental medical officer as the case may be, setting forth, that during the whole progress of the disease, the patient so recommended had done every thing within his power to forward recovery, and that the defect or loss of vision which had occurred was not justly to be imputed to intentional neglect or misconduct on his part.

Lastly.

The foregoing regulations are to be frequently read and explained to the troops; and as the strict and judicious enforcement of them must be attended with the most beneficial effects, it is ex-

pected that the active and zealous cooperation of general officers, of officers commanding regiments, of the director general of hospitals, and the staff and regimental medical officers of every description will at all times be given, to check the further progress of this most distressing disease, and to rescue the character of the British soldier even from the suspicion of practices so base in themselves, and so highly prejudicial to his Majesty's service*.

Army Medical Office, 5, Parliament Street, Dublin,
1st December, 1827.

The foregoing orders, which have been extracted from the book of regulations for the army serving in Ireland, published by order of Lieutenant General Sir George Murray, commanding the forces, dated Dublin, 1st June, 1826, and signed J. Gardiner, deputy adjutant general, are to be pasted upon boards, to be hung up in a conspicuous part of the ophthalmic wards of every general and regimental hospital in Ireland, and read and explained to the several patients labouring under the above disease, once at least in every month, by the senior staff or regimental medical officer, who is held responsible for their strict observance by all persons whom they may concern.

G. RENNY,
Director General of Hospitals in Ireland.

* "I never saw a more humiliating picture of depravity or perversion of reason, call it what we may, than I have witnessed in a ward filled with soldiers labouring under ophthalmia; most of the cases, as I learned from the surgeon in attendance, being factitious. Inflammation artificially excited is most painful, and is kept up under every privation which can make life miserable: locked up in a dark ward, and permitted to have intercourse only with the officers of the hospital, nurses, and orderlies; confined to diet, which from the absence of every stimulating material is most disrelishing; suffering under painful external applications and nauseating internal medicines; phlebotomized and leeched till their complexions are bloodless, their pulse hæmorrhagic, and the frightful train of nervous symptoms which excessive bloodletting produces is established in the system;—all these evils, in many cases, have no effect but to confirm the soldier in his determination to destroy one or both of his eyes, that he may be dismissed from the service with the chance of a small pension."—Letter to Dr. Renny by Dr. Cheyne.

No. VII.

Excerpt from a work, entitled, "Memoire sur le choix des hommes propres au service militaire dans l'armée de terre et sur leur visite devant les conseils de révision par Moricheau Beaupre, D. M. chirurgien en chef de l'hôpital militaire de Montmédy." Paris, 1820.

CAUSES OF EXEMPTION FROM MILITARY SERVICE*.

TABLE I.

PHYSICAL DEFORMITIES.

Of the Cranium.

1. Universal baldness, or great deficiency of hair on the scalp.
2. Continuity of the superior and anterior fontanelles.
3. Separation of the sutures.
4. Monstrous size of the head.
5. Depression of the bones of the cranium, or any other sensible deformity in its configuration.
6. Great lesions of the cranium, proceeding from complicated wounds, considerable fractures, the operation of trepan, or from ulcers with caries followed by exfoliation of the whole thickness of the bone. Very serious accidents may result from injuries of the head, such as aberration of the mental faculties, loss of memory, frequent pains in the head, vertigo, lethargy, and other nervous and spasmodic affections, these are also sometimes, and even long after the original injury, the consequences of a violent commotion of the brain without concomitant fracture of the skull.

* It will be recollected that the French army is recruited by compulsory levies, and that the *onus* of proving the existence of a cause of exemption from military service, frequently falls upon the conscript himself. "Les jeunes gens convoqués ont le droit de faire valoir les maladies ou infirmités dont ils sont atteints pour obtenir s'il y a lieu l'exemption du service militaire." * * * "Les maladies qui ne sont curable qu'à l'aide de l'instrument tranchant deviennent à juste titre des cas de dispense absolue."—Page 76.

Of the Face.

7. Red, grey, or livid spots, or hairy patches covering a great part of the face.

8. Hideous mutilations of the face, in consequence of large and deep burns, of the small pox, or of surgical operations.

9. Considerable loss of substance in the cheek.

10. Partial or total loss of either jaw.

11. Incurable deformity of either jaw, capable of impeding mastication, speech, or the biting of the cartridge.

Of the Eyes.

12. Complete loss of the cilia or of the hair of the eyebrows.

13. Adhesion of one or both eyelids to the eyeball.

14. Atrophy of an eye.

15. Loss of an eye, or of the use of an eye.

16. Blindness, congenital or accidental.

Of the Ears.

17. Very large or deformed ears, or small and thin ears, disagreeable in appearance, and unfit for their function.

18. Loss or want of the external ear.

19. Obliteration or imperforation of the auditory canal.

20. Straitness or contraction of the auditory canal, capable of preventing the free passage of sounds.

21. Congenital deafness or dumbness.

22. Complete accidental deafness, or incomplete and of long standing.

Of the Nose.

23. Extraordinary size of the nose.

24. Extreme smallness of the nose, with contraction of the anterior meatus of the nasal fossæ.

25. Nose very much crushed down, almost wanting, or deformed in any way tending to disfigure the countenance, or of much altering the voice, or sensibly impeding respiration.

26. Complete loss of the nose or of a portion of it.

Of the Mouth and Fauces.

27. Congenital harelip, simple, double, or complicated, with division of the alveolar process of the palate.

28. Total or partial loss of one of the lips.

29. Lips constantly open and pendulous.
30. Total loss of the incisor or canine teeth of either jaw.
31. Cleft, separation, fissure, or perforation, loss of substance, or total loss of the arch of the palate.
32. Atrophy of the tongue.
33. Adhesion of the tongue to the parietes of the mouth.
34. Partial or total loss of the tongue.
35. Almost complete destruction of the velum.
36. Dumbness.
37. Extinction of the voice, or manifest alteration of it by schirrhous of the tonsils, bifurcation or destruction of the soft palate, or contraction (*racornissement*) of the epiglottis.
38. Complete and permanent aphonia.
39. Stammering to a great extent, such as to compromise the safety of a post.

Of the Chest.

40. Gibbosity or protuberances, situated on the anterior or posterior part of the chest.
41. Protuberance of the back, with flattening of the anterior part of the chest, or simple depression of the sternum.
42. Adhering cicatrices of the parietes of the chest, the consequence of wounds, with lesion of the viscera.
43. Multiplication and development of the mammæ, resembling those of women.

Of the Vertebral Column.

44. Curvature or deviation of the cervical, dorsal, or lumbar portion of the spinal column.

Of the Pelvis.

45. Deviation or unnatural prominence of one of the sides of the pelvis.

Of the Abdomen.

46. Artificial or unnatural anus.

Of the Genital Parts.

47. Unnatural situation of the orifice of the urethra, either superiorly or inferiorly, at the middle or root of the penis (epispadias ou l'hypospadias).
48. Considerable contraction of the urethra.
49. The absence, and total or almost total loss of the penis.

50. Absence of the testicles *.
51. Testicles remaining at the ring.
52. Atrophy of both testicles.
53. Loss of both testicles.
54. Absence or total loss of the genital parts.
55. Discharge of the urine by the umbilicus.
56. Hermaphroditism, that is to say, unnatural conformation of the genital parts, resembling a union of the sexes.

Of the Members in general.

57. Unnatural development and monstrous increase of the substance of the bones.
58. Curvature of the long bones.
59. False or unnatural joints.
60. Complete ankylosis of a joint.
61. General or partial atrophy of a limb.
62. Permanent contraction of a limb or part of a limb.
63. Weakness, difficulty of moving, or total and irremediable loss of motion of a limb.
64. Privation of a limb, or an essential part of a limb.
65. Depressions, inequalities, deviations or shortening of the extremities, proceeding from simple or compound fractures badly cured.
66. The same, proceeding from articular separations, violent sprains, and neglected or badly treated luxations.
67. Old or recent cicatrices, large and deep, combined with varices, livid, unsound, with symptoms of a weak constitution.
68. Hard cicatrices following burns, contusions, gun-shot wounds, surgical operations, or any other solution of continuity with or without loss of substance, principally those on the lower limbs, adhering to the muscles, tendons, capsular ligaments, or bones, which, by impeding the action of the muscles and keeping the limb in a constant state of rigidity, prevent free motion; and also cicatrices which are tender, liable to become painful, inflamed and opening anew from marching, compression, friction of clothes, falls, cold, &c.

The Superior Extremities.

69. The superior or inferior extremities too long or too short.
70. One shoulder much lower than the other.

* I have met with only one instance where both testicles had not descended.

71. Congenital deformity of the hands.
72. Extraordinary size of the hands, proceeding from a natural lymphatic engorgement, or a general varicose state of the venous capillaries, or from habitually ulcerated chilblains.
73. General callosity with painful fissures in the palms.
74. Fingers united.
75. Supernumerary or bifurcated fingers.
76. Permanent extension or flexion of one or of several fingers, as well as irremediable loss of motion of these parts.
77. Loss of the first phalanx of the thumb of the right hand.
78. Total loss of a thumb.
79. Partial or total loss of the index finger of the right hand.
80. Loss of the first and second phalanges of the fingers of the right hand.
81. Total loss of two fingers of the same hand.
82. Mutilation of the last phalanges of the fingers of either hand.
83. Great deformity of the nails.

Inferior Extremities.

84. Great deformity of the inferior extremities.
85. Curvature of one or both knees, or being in-kneed.
86. Extraordinary size of one or both limbs.
87. Extraordinary projection of the inner ankle, in consequence of the natural or accidental deviation of the bones forming the articulation of the foot with the leg.
88. Permanent contraction of the tendo achillis.
89. Well-marked lameness.
90. Very short and thick feet.
91. Inversion of the feet, or the feet called *bots ou torts*.
92. Flat feet, — long thin feet.
93. All the toes united, — double or bifurcated toes *.
94. Deviation of the great toe, superposition of this toe; bunions.
95. Overlapping or superposition of any of the other toes.
96. Retraction or unnatural curvature of all the toes of a foot, or of two toes at least.
97. Partial or total loss of a great toe.
98. Partial or total loss of two toes of one foot.
99. Immobility of the great toe.
100. Immobility of two toes of a foot.
101. Mutilation of the last phalanges of the toes of either foot.

* This formation is very rare. I have met with it only twice.

TABLE II.

DISEASES AND INFIRMITIES.

Ulcers.

1. Old constitutional ulcers of a bad character.
2. Ulcers with varicose veins.
3. Inveterate indolent and scorbutic ulcers.
4. Phagedenic and dartrous ulcers.
5. Scrofulous ulcers.
6. All ulcers of whatever kind, provided they are extensive, deep, and situated on parts liable to motion. When the soft parts have been extensively destroyed, or the bones exposed, the cicatrix must be adherent and unsound.

Fistulæ.

7. Fistulæ penetrating into osseous cavities, joints, spongy bones, or enlarged glands.
8. Fistulæ affecting excretory ducts, or which communicate with the interior of the larynx, of the thorax, or abdomen.
9. Urinary and fecal fistulæ.

Abscesses.

10. Large abscesses having a constitutional origin.
11. Indolent abscesses apparently constitutional, if it be probable that the subjacent bones are affected.
12. Congestive abscesses; Pott's disease, or caries of the vertebræ.
13. Internal or deep-seated abscesses which have an external opening.

Tumours.

14. Varicose, aneurismatic, or erectile tumours, fungus hematodes.
15. Aneurism of the principal arterial trunks, internal or external.
16. Constitutional chronic tumours.
17. Polypi of the auditory tube, of the frontal or maxillary sinuses, throat, pharynx, nose, &c.
18. Varicose excrescences, incurable fungous or sarcomatous tumours.
19. Considerable enlargement of the cervical, submaxillary, axillary, or inguinal glands, as also of the mesenteric glands, marasmus.
20. Lachrymal, salivary, or hepatic tumours.

21. Large or numerous encysted tumours of whatever nature or kind, if they cannot be dispersed or removed without a surgical operation.

22. Exostoses.

23. White swelling, and other important diseases of the joints.

24. Scrofulous tumours, external or internal.

25. Cancerous tumours, or fleshy excrescences of the skin.

Hernia.

26. Abdominal hernia, single or double, reducible or irreducible, easy or difficult to be retained in its place.

27. Hernia of the lungs.

28. Procidencia, or hernia of the iris.

29. Muscular hernia or displacement.

Organic Degenerations.

30. Schirrhous, and all large schirrhous excrescences.

31. Cancer and carcinoma.

32. Osteo-sarcoma.

33. Tubercles.

34. Transformation of muscles into a white or fatty texture.

35. Chronic hardening of the cellular tissue of the scrotum or of a limb, &c.

These diseases are to be considered of importance wherever they may be situated, or under whatever form they may appear.

Diseases of the Skin.

36. Moist, extensive constitutional darts; confirmed darts constitution.

37. Obstinate and complicated itch (scabies).

38. Elephantiasis.

39. Leprosy.

40. Tinea capitis.

41. Phthiriasis, or the lousy disease.

42. Ichthyosis, or pellagra.

Observation. All obstinate disgusting hereditary or contagious diseases of the skin.

Diseases of Muscles.

43. Ruptures in the fleshy and tendinous parts of the muscles of the lower extremities.

44. Permanent retraction of the muscles.

- 45. Wry-neck of long standing.
- 46. Atony, or constant relaxation of the muscles of a part.

Diseases of the Bones.

- 47. Caries, especially of the spongy bones.
- 48. Necrosis.
- 49. Exostosis.
- 50. Periostosis.
- 51. Spina ventosa.
- 52. Diastasis.
- 53. Old dislocations.
- 54. Severe fractures.
- 55. Violent sprains, with complete or incomplete displacement of a bone.
- 56. Softening and fragility of the bones.
- 57. Swelling of the heads of bones.
- 58. Foreign bodies in the joints.
- 59. Dropsy of the joints.

Nervous Diseases.

- 60. Mania.
- 61. Mental alienation (*folie*).
- 62. Idiotism or imbecility.
- 63. Violent vertigo.
- 64. Epilepsy.
- 65. Somnambulism.
- 66. Tic douloureux, or convulsion of the face.
- 67. Difficulty of deglutition from paralysis of the œsophagus.
- 68. Constant hickup.
- 69. Constant dyspnœa.
- 70. Habitual asthma, whether it be dry, humid, or catarrhal.
- 71. Periodical or convulsive asthma.
- 72. Palpitation of the heart.
- 73. Violent and constant palpitation in the epigastric région.
- 74. Habitual vomiting; rumination.
- 75. Polyphagia; bulimia; voracity or insatiable appetite.
- 76. Sciatica.
- 77. Habitual trembling of the head or whole body.
- 78. Partial or general trembling of the limbs.
- 79. Chorea.
- 80. Habitual convulsion, general or partial.
- 81. Complete or incomplete paralysis of a part.

General or Constitutional Diseases.

82. Rachitis.
83. Scrofulous sores.
84. Well-marked scrofulous constitution.
85. Constitutional weakness and extreme leanness.
86. Obesity, or polysarcia.
87. Marasmus, with or without fever.
88. Hectic fever, with or without organic lesion.
89. Intermittent fever of long standing, and incurable.
90. Scurvy in a high degree.
91. Scorbutic and venereal cachexia.
92. Anasarca.
93. Chronic jaundice.
94. General and habitual sweating.
95. Fetid sweating.

Observation. Excessive predominance of the sanguineous system, or the plethoric constitution, with large head, short neck, bloated face, prominent veins, so that the countenance becomes dark coloured, and the person is threatened with apoplexy on wearing a stock.

Diseases of the Cranium.

96. Hydrocephalus.

Of the Ears.

97. Habitual fetid and purulent discharge from the auditory canal.

Diseases of the Eyes.

98. Paralysis of the upper eyelids.
99. Ectropeon.
100. Trichiasis.
101. Habitual lippitudo.
102. Chronic purulent discharge from the eyelids.
103. Chronic inflammation and ulceration of the eyelids.
104. Involuntary motions of the eyelids.
105. Excrescence from the caruncula lachrymalis.
106. Epiphora.
107. Varices of the conjunctiva.
108. Ulcers and fistulæ of the cornea.
109. Varicose engorgement of the cornea.
110. Staphyloma.

111. Specks on the cornea, opposite the pupil, or extensive enough to render the sight obscure, especially of the right eye.
112. Chronic, habitual, and incurable ophthalmia.
113. Habitual or frequent fluxion to the eyes.
114. Pterygium.
115. Hydrophthalmia.
116. Exophthalmia.
117. Habitual winking with the right eye.
118. Habitual convulsions of the eyes.
119. Myopia.
120. Diplopia, or double vision.
121. Amblyopia, weak or confused sight.
122. Hemeralopia.
123. Nyctalopia or night blindness.
124. Amaurosis.
125. Weakness of sight proceeding from injury, or excessive sensibility of the iris, &c. &c.
126. Blindness caused by Opacity of the cornea.
- Absence or closure of the pupil.
 - Adhesions of the iris to the cornea.
 - Paralysis of the nerves of the iris.
 - Cataract.
 - Paralysis of the optic nerve.
 - Glaucoma.
127. Strabismus, when in a great degree.

Diseases of the Nose.

128. Habitual bleeding from the nose.
129. Purulent and fetid discharge from the nose.
130. Ozæna.
131. Every ill-conditioned ulcer of the nose.
132. Swelling of the cartilaginous septum of the nose, obliterating the nasal fossæ.

Diseases of the Mouth.

133. Anchylosis of the inferior jaw.
134. Swelling and excessive prolongation of the tongue.
135. General caries of the teeth; loss of many teeth.
136. Enlargement of the tonsils.
137. Involuntary discharge of saliva.
138. Breath fetid from irremediable causes.

Diseases of the Neck.

- 139. Goitre or bronchocele, large enough to impede respiration.
- 140. Ossification of the thyroid gland.
- 141. Laryngeal phthisis.

Diseases of the Chest.

- 142. Aneurism of the heart, and all affections of that organ.
- 143. Phthisis pulmonalis, in its first, second, and third degree.
- 144. Hemoptysis from original habit, habitual or periodical.
- 145. Hydrothorax.
- 146. Hydropericardium.

Diseases of the Abdomen.

- 147. Chronic peritonitis.
- 148. Inflammation or chronic enlargement of one or more of the abdominal viscera.
- 149. Marasmus.
- 150. Ascites.
- 151. Hematemæsis.
- 152. Melena.
- 153. Tape-worm.
- 154. Chronic dysentery.
- 155. Chronic and habitual discharge of blood.
- 156. Permanent incontinence of fecal matter.
- 157. Internal hemorrhoidal tumours.
- 158. Hemorrhoidal flux.
- 159. Ulcerated hemorrhoids.
- 160. Habitual prolapsus of the rectum.

Diseases of the Urinary Passages.

- 161. Gravel, or calculous nephritis.
- 162. Hematuria.
- 163. Habitual or frequent retention of urine, in consequence of a chronic affection of the urethra or bladder.
- 164. Chronic catarrh of the bladder.
- 165. Vesicular calculus.
- 166. Incontinence of urine.
- 167. Diabetes.
- 168. Permanent retraction of one or both testicles, so as to produce a painful sensation at the ring.
- 169. Hydrocele of the tunica vaginalis or chord.

170. Varicocele.

171. Cirsocele.

172. Hematocele.

173. Sarcocoele.

Observation. All ineurable affections of the serotum, testicles, and spermatic chord.

Diseases of the Superior and Inferior Extremities.

174. Numerous and large warts covering the hands, so as to prevent the free motion of the fingers.

175. Relaxation of the articular capsules and ligaments, with extraordinary mobility, and voluntary or involuntary luxation of a bone.

176. Large and numerous varices.

177. Rheumatism or chronic gout, with swelling of the joints, engorgement of the surrounding tissues, and difficulty or impossibility of motion.

178. Chronic rheumatic pains.

179. Habitual œdema of the lower extremities.

180. Habitual sweating of the feet.

181. Nails deeply sunk in the flesh.

CONCEALED OR DISSEMBLED DEFECTS AND DISABILITIES*.

Class I. *Defects which are comparatively obvious.*

1. Baldness.
2. Loss of the hair of the eyebrows.
3. Loss of teeth.
4. Fetid breath.
5. Inguinal hernia.

* The dissimulation of infirmities is chiefly practised by substitutes. Sometimes, however, men who have been drawn as conscripts conceal defects, under the idea that certain disabilities, as hernia, are disgraceful (*maladie honteuse*), and would rather serve than let it be publicly known that they have a complaint of that kind. “Une grande partie des remplaçans admis dans les dernières levées sont des gens oisifs et misérables que le besoin et l'appât de l'argent ont attirés des villes et des campagnes, et que je considère comme une peste morale repandue dans les légions.” Page 43.

6. Incontinence of fecal matter.
7. Habitual prolapsus of the rectum.
8. Retention or incontinence of urine.
9. Discharge of urine from the umbilicus.
10. Habitual sweating of the feet.
11. Shortness of an inferior extremity*.

Class II. *Disabilities which cannot be correctly ascertained until after some experience of an individual.*

1. Weakness, or total loss of, memory.
2. Short-sightedness.
3. Epilepsy.
4. Somnambulism.
5. Periodical hemoptysis.
6. Asthma.
7. The existence of tenia.
8. Habitual vomiting.
9. Insatiable voracity.
10. Rumination.
11. Gravel.
12. Hemorrhoidal flux.
13. Chronic catarrh of the bladder.
14. Rheumatic and neuralgic pains.
15. Intermittent fever of long standing and incurable.
16. Debility.

FEIGNED DEFECTS OR DISABILITIES†.

A. *Disabilities depending upon the will.*

1. Epilepsy.
2. Idiotism.

* “Une chaussure artestement faite derobe le léger racourcissement d’une extrémité inferieure.” Page 81. The conscripts seem not to have been generally examined by a medical officer in a state of nudity.

† “Les jeunes gens sont seuls intéressés a simuler devant les conseils de revision des maladies et des infirmités, dans la vue de se soustraire aux obligations de la loi.” Page 83. * * * * “Il n’est rien que l’esprit n’invente la malice ne trouve et la ruse ne con-

3. Want of memory.
4. Melancholy madness.
5. Mania*.
6. Deafness.
7. Falling down of the upper eyelid of the right eye.
8. Involuntary motions of the eyelids.
9. Squinting.
10. Convulsive motions of the eyelids and eyes.
11. Dumbness.
12. Aphonia.
13. Hesitation of speech.
14. Wryneck.
15. Gibbosity.
16. Round-shoulderedness.
17. Curvature of the spine.
18. Voluntary vomiting.
19. Rumination.

seille pour tromper le médecin et lui faire prendre le faux pour le vrai — l'apparence pour la réalité. L'imbecille même devient alors fertile en expédients et porte loin le talent admirable de l'imitation et le raffinement de la fourberie." Page 84. * * * *

"Les officiers de santé doivent, pour l'utilité de la chose l'honneur de la médecine légale et leur propre satisfaction, faire preuve d'un tact fin et délicat, d'un jugement sain et d'un talent exercé. Ils ne se montreront ni trop incrédules ni trop confians ; leur sagesse et leur justice se feront surtout remarquer par les soins apportés à éviter une erreur préjudiciable et en procédant avec calme et sangfroid à l'examen d'une maladie que leur connaissances, leur expérience fondée sur l'habitude de voir et de comparer, ainsi que la manière dont l'individu l'accuse, leur feraient préjuger au premier coup d'œil, simulée et volontaire. L'art de parvenir à la découverte de la vérité veut qu'on ne témoigne point de suite une trop grande défiance que l'on emploie des moyens persuasifs que l'on mêle la douceur à la sévérité et que l'on sache enfin opposer adroitement la ruse à la ruse." Page 56.

* "L'ingestion de substances particulières et vénéneuses dont la connaissance devrait toujours rester profondément cachée au vulgaire produit la faiblesse du poulx la folie furieuse, les palpitations, et la goutte-sereine." Page 95.

20. Retention and incontinence of urine.
21. Partial or general trembling.
22. Paralysis*.
23. Contraction or constant flexion of the fingers or limbs.
24. Lameness.
25. Rheumatic or neuralgic pains.
26. Elevation of one shoulder.
27. Anchylosis or stiffness of a joint.
28. Shortness or deviation of a limb.
29. Inversion of the feet.

B. *Artificial or factitious disabilities, without any alteration of tissue or important lesion of function.*

1. Jaundice.
2. Ecchymosis.
3. Phthiriasis, or lousy disease.
4. Purulent discharge from the ears.
5. Hemoptysis.
6. Hematemæsis or vomiting of blood.
7. Inguinal and scrotal hernia.
8. Prolapsus of the rectum.
9. Internal hemorrhoids.
10. Hematuria.
11. Excretion of gravel.
12. Change of the colour and consistence of the urine.
13. Hemorrhoidal discharge.
14. Varices.

C. *Excited disabilities by external or internal agents.*

1. Wounds.
2. Mutilations.

* “Unc homme simulait parfaitement une hémiplegie dont l'apparence en avait imposé à un chirurgien tres instruit: il ne fallut qu'un peu de reflexion pour faire reconnaitre de suite que la maladie etait feinte et que le delinquant se trahissait lui-même parceque la contraction des muscles qui dans la maladie réelle porte la commissure des levres en dehors, et a pour cause le defaut d'action des muscles antagonistes avait lieu du côté même pretendu paralysé, ce qui etait evidemment contraire a l'observation et a la theorie admise.” Page 90.

3. Ulcers.
 4. Eruptions (dartres).
 5. Tinea capitis.
 6. Eruption of pustules ; petechiæ.
 7. Ophthalmia.
 8. Scurvy of the gums.
 9. Caries or loss of almost all the teeth.
 10. Hydrocephalus.
 11. Vertigo.
 12. Furious madness.
 13. Emphysema.
 14. Ascites*.
 15. Tympanites.
 16. Hydrocele.
 17. Hematocele.
 18. Inguinal or scrotal hernia.
 19. Vomiting.
 20. Weakness of the pulse.
 21. Fainting.
 22. Palpitation of the heart.
 23. Amaurosis.
 24. Fever.
 25. Emaciation and debility.
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* "Il en est qui simulent une hydropisie, ascite, et vaginale, moyennant l'injection d'un liquide aqueux et innocent." Page 95.

No. VIII.

(See page 107, *Feigned Disabilities.*)

Pat. Maguire surrendered himself at this depôt as a deserter from the 87th regiment, on the 13th February, 1828. Although there was, from the first, strong presumptive evidence that he was the same person who had been discharged from the Company's service, still a doubt might be entertained in that respect. On examining him, however, every shade of uncertainty was removed. I found him to be the veritable Pat. Maguire that I saw in the East India Company's depôt hospital, and the Fort Pitt general hospital in 1824 and 1825. After being a considerable time under the care of Dr. Davies, who called into consultation several other medical officers of the garrison, he was at the Doctor's request transferred to Fort Pitt. His discharge certifies, that "Gunner Patrick Maguire has served honestly and faithfully (the Honourable East India Company) for the space of one year and one hundred and thirty-three days; but being unfit for service, in consequence of chronic rheumatism of the right hip, he is, by order of the Honourable Court of Directors, hereby discharged." Maguire is a well made, active, healthy young man; and if he chooses may become a good soldier. There can be no doubt entertained that his statement respecting the hurt he received was fictitious, and that the lameness was merely assumed.

(See page 136, *Epilepsy.*)

Medical officers cannot take too much care to prevent becoming the dupes of simulators of this disease, and to protect Government from incurring expense on account of imposition. Only a few days ago (February, 1828) I was instructed by the deputy adjutant general to inspect a pensioner, who had been discharged on account of epilepsy, and to grant him a certificate in regard to his infirmity, with the view of his applying to the Commissioners of Chelsea Hospital for an increase to be made to his pension. The man stated that he had a paroxysm every day about twelve o'clock. I observed to him, that, unless I was present during a fit, I could not certify that he suffered under epilepsy. While conversing with him respecting his complaint, he began to tremble, his whole

body then became agitated; at length he sunk to the ground, and the contorsions and violent exertions of the body became very violent. I soon saw that the paroxysm was fictitious, and after allowing him to tire himself, I told him to rise, as I was satisfied in regard to the nature of his disability. The agitation of the limbs rapidly subsided, and he got on his legs in two or three minutes, seemingly well pleased with the scene he had enacted. This man has drawn a pension from government for sixteen years.

(See page 168, *Contractions.*)

Batts has at last virtually given in. On joining the brigade from Ireland, he admitted that the contraction of his knee was less than it had been, and that the extremity was becoming more efficient. As the amendment made but slow progress, Mr. Bramley, assistant surgeon to the brigade, informed him, that, in the event of the improvement of his knee joint not becoming more decided, he should consider it necessary to recommend his being transferred to a warm climate, perhaps to Sierra Leone, as a most effectual means of relaxing the contraction. This intimation had scarcely been made to him more than a day or two when the limb became nearly straight, and before a week had passed he applied for a short furlough. He observed, when this application was made, that a temporary absence from the corps would in all probability be followed by a restoration of the limb to its natural state. The furlough was very properly granted, under an impression that he would have a good opportunity of returning to the brigade confessedly in an efficient condition. He joined about the middle of February; and the following is an extract from a report made by Mr. Bramley to the medical board respecting him: "The limb has gained its natural size, and the contraction, though not altogether recovered, is considerably improved. The heel comes in contact with the ground at every footstep, the knee inclining inwards, and the foot somewhat everted, giving the appearance, when in an upright position, of a soldier standing at ease. He expresses himself so far recovered as to be able to undertake the ordinary duty of a soldier." It is not surprising that there should be some degree of stiffness in the knee joint, when it is considered that he has kept the limb in a *constrained position for nearly three years.*

When a malingerer has by mild but firm and judicious measures

been induced to give in, I consider the circumstance of some importance to the service. Owing to the frequent intercourse which exists among soldiers, the event becomes often extensively known; hence a useful warning is afforded, by which means individuals who may be disposed to simulate disabilities are deterred from making an attempt. On the other hand, when a schemer succeeds, hope is excited, and his example may be imitated by numbers. In a great many instances I believe the inmates of an hospital are aware of the circumstance when their comrades are malingering, although they very rarely, indeed almost never give the medical officer a hint on the subject. An informer becomes an object of universal detestation; and hence the difficulty of accurately ascertaining the various methods of simulating disease. In all cases respecting which a medical officer finds some difficulty in making up his mind, patience and perseverance are strongly indicated; and when a soldier is presumed to be a determined schemer, it is bad policy to recommend him to be discharged, under the idea, that as he is not likely to become useful in the ranks the service would be benefited by getting rid of him, or to promote his views by assigning as a reason for discharging him *some possible or imaginary physical infirmity*, when the real cause for wishing to discharge him is a perversity of mind, which induces him to pretend to be infirm or unhealthy, and inspires him to endure, often for a long time, any thing rather than do his duty.

One of the first things a man of this kind frequently does after he obtains his discharge, is to avail himself of the official statement of the cause of his being unfit for the service to apply for a pension; and as the application is invariably made through medical officers, who he presumes to be unacquainted with his character, it would be surprising if he did not sometimes obtain a favourable representation of his case. Similar reasons may be urged with regard to the propriety of exercising much care not to send a schemer home from a foreign station, such as India, on account of infirm health. The mere circumstance of a man having been so transferred at the recommendation of a board of medical officers, affords a strong presumption that he had suffered under some serious cause of disability, although no well-marked trace of any material disease may be discoverable on his arrival in this country; and persons of the stamp alluded to never fail to adduce this fact in their favour most forcibly; indeed they commonly seem to consider it alone as an incontestable proof that they ought to be dis-

charged, either with or without a pension. This kind of evidence is sometimes difficult to set aside, although it certainly does not always produce conviction.

Many a soldier is admitted on the sick list on account of some complaint which requires medical treatment, who during the period of convalescence becomes in love with the ease and comfort of the hospital establishment, and evinces no disposition to leave the hospital. His first intention as a schemer may be merely to evade duty, but by degrees his views extend to an endeavour to get his discharge, and if possible with a pension "on account of disability contracted in the service." Whenever a convalescent begins to think himself very comfortable in hospital, he is in a fair way of becoming a malingerer. But what is more remarkable, the same man, who did every thing he could to procure his discharge, will frequently in the course of a short period evince an equal degree of anxiety to re-enter the service. This day (4th March) I inspected a recruit, who by a certificate which he produced was admitted a pensioner on the East India Company's military fund at nine-pence per day, "in consideration of his being rendered incapable for service, having lost the use of his left hand." His left superior extremity is at present efficient in every respect; and that it has been so for some time (if it was ever otherwise) may be inferred from the circumstance, that the muscles of the left arm are as much developed as those of the right. This man's certificate is dated London, 25th July, 1827: he served four years in India, is about 25 years of age, and professes to be very anxious to re-enter the Company's service.

When soldiers who have but short service, or whose disabilities are presumed rather than demonstrated, receive pensions, in other words, when a man's claim is not strong from servitude, or a doubt may be entertained as to the reality and probable permanency of a disqualifying disease, it would perhaps be advisable that the allowance should invariably be merely conditional or temporary, so as that a pensioner should be examined by a medical officer, and reported upon, at particular periods, for the information of "The Lords and others Commissioners of Chelsea hospital." The operation of this measure may be partly inferred from the following case. Peter Lynch was, on the 15th March, 1826, discharged from the 44th regiment after three or four years service, in consequence of "pulmonic complaint," with a pension of sixpence a day for one year. In April, 1827, he applied to me as "a medical officer of the re-

gular army," by desire of the Secretary to the Commissioners at Chelsea, for a report on the state of his health, which he received. His pension was not renewed. He then applied through the deputy adjutant general to be allowed to re-enlist in the 44th regiment, and was rejected on examination, in consequence of his having been lately discharged on account of disease. Shortly after he enlisted in the country, and came to Dublin a recruit for the 27th regiment: he was returned ineligible for the service; then brought before a medical board, by which he was finally approved.

(See page 181, *Maiming*.)

O'Brien (late 4th dragoons) mentioned under this head, has obtained his discharge. He is now (4th March) employed as a clerk in a mercantile establishment of this city.

THE END.

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